

Middleton Master Plan
2007 Update

I. Introduction and Background

The Town of Middleton was originally granted in 1749, then incorporated in 1789 (check date). It originally included what is now the Town of Brookfield, which petitioned to be incorporated separately in 1792 (check date).

Middleton grew through the first half of the 19th century as a primarily agricultural town situated just north of the more industrial center of Rochester (and Farmington). As with many New Hampshire towns, Middleton lost population during the second half of the 19th century, as people migrated West. It remained a relatively quiet, small town for the first sixty years of the 20th century.

But—again as with other New Hampshire towns that include lakes—the 1960s brought new development. Most of shoreland of Sunrise Lake in Middleton were quickly subdivided into hundreds of small lots designed primarily for seasonal camps. By the 1980s, those camps were being converted into year-round homes—either by their original owners or by new owners seeking affordable housing within easy commuting distance of Portsmouth, Dover and Rochester.

The Planning Board was established in the mid-1970s. In 1981, the first zoning ordinance was passed. A Master Plan was created in 1982 (check date).

Following the downturn in the real estate market in the early 1990s, Middleton continued to grow. Middleton offers a small-town atmosphere, open space, recreational opportunities, and relatively low housing costs, all within a reasonable drive of the Seacoast, Lakes Region, and Central New Hampshire.

But by the early 2000s, the rate of growth was unprecedented. The Town passed an Interim Growth Ordinance in 2004 (check date), and used that one-year period to develop and pass, based on public input, several key changes to the zoning ordinance: enlargement of the commercial district, creation of the Middleton Four Corners District allowing greater density and mixed use within the town center, the establishment of an optional Open Space Subdivision Ordinance, and larger minimum lot sizes in the Rural Residential District.

This updated Master Plan, based on public input, is meant to guide and inform Middleton's future development into the 21st century.

A. Purpose and Goals

Since the 1960s, Middleton has been growing, often rapidly. The purpose of the Master Plan is to provide for this growth in a way that protects Middleton's rural, small-town character and values, those very things that have brought us together here to live.

The goals that the Master Plan tries to achieve are:

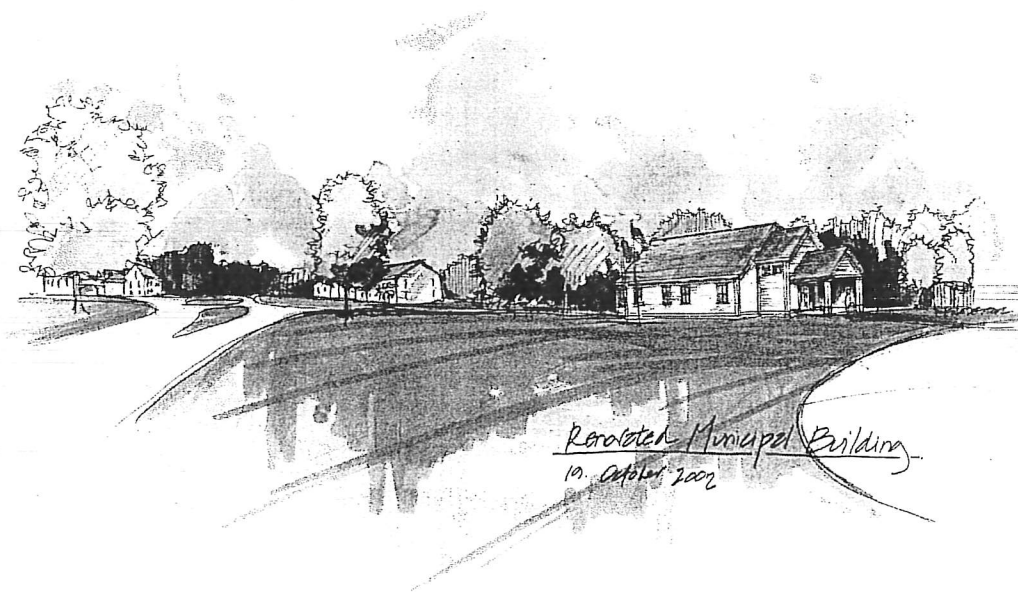
1. To protect Middleton's rural, small-town character, while allowing compatible residential and commercial development.
2. To provide for balanced, orderly town development, consistent with the ability of Middleton's land base to sustain development and the town's ability to provide necessary services for such development.
3. To insure higher standards for public health, safety and welfare, particularly in the areas of fire and police protection, road maintenance and education.
4. To protect and preserve Middleton's important natural resources, particularly its lakes, ponds, streams and other wetlands, drinking water resources, working forests, landform[what does this mean?] diversity, wildlife habitat and other unique and/or fragile areas.
5. To encourage social cooperation and opportunity between Middleton's year-round and seasonal residents.
6. To provide for local agriculture and forestry opportunities and promote local businesses.
7. To protect Middleton's historic resources (such as the Old Town Hall) and character wherever feasible.

B. Plan Objectives

The following objectives of the Plan came from an analysis of the Middleton Town Survey. The survey was conducted in the fall of 2005, and is discussed later in the Plan. The objectives are the specific ways in which the Town Plan tries to achieve progress towards its general goals. The objectives are:

1. To more adequately protect Sunrise Lake from threatening over-development and the consequences of expensive water pollution problems, by more strictly regulating development adjacent to its shores.
2. To investigate and improve upon Middleton's present educational system.
3. To provide recreational facilities and increased outdoor recreational opportunities for all citizens of Middleton and especially our younger generation.
4. To provide increased fire protection for the Town.
5. To support and improve Middleton's town government.
6. To plan for the systematic maintenance and improvement of Middleton's road system.
7. To insure adequate, year-round police protection for the entire community.

8. To identify areas in which to encourage business and commercial growth in the community, particularly small-scale business, in existing commercial areas and the downtown core near Town Hall.
9. To research new and innovative ordinances to specifically protect open spaces, unfragmented forestlands, and Middleton's wetland areas, and to encourage the creation of a formal Open Space Plan.
10. To consider a capital improvement program for the Town, so that the Town may be more adequately prepared to deal with new growth.
11. To investigate regional alternatives to solid waste disposal in accordance with Chapter 149-M, New Hampshire Revised Statutes Annotated.
12. To more strictly regulate development on the many steep slopes of Middleton, preventing soil erosion, property damage, and visual obstruction.
13. To provide and maintain a permit system that comprehensively regulates commercial sand and gravel extraction in Middleton, in accordance with New Hampshire State Law RSA 155-E.



Middleton at a glance:

Selected Physical Characteristics	
Land Area in Acres	11568.36
Land Area in Square Miles	18.075
Total Acres Land & Water	11842.95
Total Square Miles Land & Water	18.504
Miles of Shore Line on Great Ponds	4.33
Acres of Farm Class Current Use	0



Town of Middleton

II. Middleton Vision Statement and Implementation Recommendations

This vision section serves as the foundation for other sections of the Master Plan. These statements articulate the desires of the citizens affected by the master plan, not only for our locality but for the region and the whole state. This section of the Master Plan is one of two required sections, pursuant to RSA 674:2(II)(a).

The Planning Board of Middleton hereby adopts the following vision statements to reflect the results of our own research and our community survey results:

- Middleton should develop over time as a town that embraces community involvement and interaction, fostering healthy and affordable lifestyles for its citizens through a clean environment, exemplary public safety, accessible recreation, economic opportunity, aesthetically pleasing design, and responsive government that strikes a fair balance between individual rights and community interests.
- The tax base of Middleton should be leveled so that it represents a balance of affordable services and housing and potential negative impacts on our citizens on limited and fixed incomes and small businesses and industry.
- Middleton should be able to accommodate growth in a manner that reasonably preserves a small town feel and look, including the development and support for an active Town Center.
- Middleton should continue to respect and preserve land for wildlife and our water resources, with particular attention to Sunrise Lake and wetlands and our existing Town Forest and other existing conservation lands.



Resource Conservation Goals:

- Minimize impacts to water resources.
- Preserve large unfragmented lands.
- Minimize obtrusive development on ridgelines and steep topographies.

Development and Growth Patterns:

- Minimize consumption of land per dwelling unit and per person.
- Concentrate higher density growth and promote a traditional, walkable town center with mixed residential/small-business commercial uses.
- Discourage and restrict sprawling development in outlying areas of Town.

Economic Goals:

- Use existing legal mechanisms to offset growth related costs.[how is this different from CIP reference in III below?]
- Provide reasonable return on property investment without compromising other goals and objectives for our community and future generations.
- Insure that services are available to accommodate the location and amount of growth that is proposed.
- Do not jeopardize existing service levels through unplanned growth.
- Promote non-residential development in business districts and mixed uses in our village center.

III. Guiding principles and priorities for implementing this vision.

Finance and community services:

- The Planning Board should develop a Capital Improvements Program to assist in planning for the future expenditures of the Town and the expansion of municipal services.
- The Planning Board must be aware of a significant opinion that growth in services results in increased taxes and that such impacts be minimized.
- The Board should consider impact fees to insure development accounts for growth related capital expenses.
- The Board should work with Town government examining the future of our schools and the highway garage and municipal center.
- Open and expand Town Cemeteries for residents of Middleton.

Natural Resources:

- The Planning Board should continue to review and adopt regulations and present ordinances to the Town Meeting that protect our natural resources while allowing for reasonable development opportunities.
- The Town of Middleton's major natural resources are both specific locations and general forms. Primarily, the Town of Middleton benefits from large unfragmented areas of land with significant opportunity for conservation.
- Water resources, forests and wildlife habitat all benefit from these spaces and although some are also located outside these areas, they are worthy of specific protections such as increased buffers.
- Specific locations for these resources and concerns are:
 - Sunrise Lake is worthy of protection to prevent from Milfoil, preserve viewsheds, and alleviate impacts from over use and unreasonable boating impacts.
 - The defunct Tanglewood subdivision
 - Moose Mountains Reservation and surrounding areas
 - Piper Mountain
 - Cochecho River Watershed
 - Moose Brook
 - Salmon Falls Watershed
 - Stratified-drift Aquifer as found in USGS report
- Old growth areas should be preserved aggressively due to their endangered state.

Development form:

- With increased growth pressure, the Planning Board should be vigilant in monitoring development to insure the form, style, and facilities are consistent with this vision. When conflicts occur, the Board should examine the regulations carefully for problems.

Historical:

- The Town should seek to support the preservation of old buildings, historic viewsheds and landscapes, and work with land owners to help with this preservation allowing for balanced growth and use of the land.
- Historic trades such as forestry and other agricultural resources should be preserved as part of our landscape and local economy.

Housing:

- Housing opportunities should be diverse and represent a balanced community.
- All housing should promoting safe, aesthetically pleasing layout driven by a long-term goal of a developing a livable community.
- Implement and support increased opportunities of small-scale affordable housing options such as accessory apartments and similar uses.

Social:

- Encourage expansion of opportunities for the community to gather and interact; from the youth to the adult community, such as a local store and/or recreational facilities.
- Provide for increase involvement in town government and activities.
- The Board should consider ways to allow development that encourages neighborhoods and social interaction.
- Social interaction through biking, hiking, and enjoying our natural resources should be encouraged and expanded.

Legislative Action

- The Board should research and provide models that envision future infrastructure around which a livable community can develop—small businesses that service

local residents, walkable trails and sidewalks, access to public recreation facilities, etc.

- The Board should research and propose a new sign ordinance for the Town Meeting.
- The Board should consider examining the appropriateness of home businesses based on their location and off-site impacts and diversify opportunities appropriately.
- The Board should consider new regulations on the creation of roads and mitigating traffic impacts.
- The Board should consider ways to discourage strip road-frontage development that fragments lands, creates numerous traffic conflict locations, and does not allow for the creation of neighborhoods.

Chapter 2: Population and Housing- Growth Trends

This chapter describes population growth in Middleton. An analysis of population and housing characteristics is included. These statistics should help guide town decisions about land development and the provision of public services to accommodate future growth.

Like many New Hampshire towns, Middleton experienced a decline in population growth through the end of the 19th century. This decline reversed starting in the 1960s, as the area around Sunrise Lake began to be developed, primarily for seasonal camps. Increasingly through the 1980s, late 1990s and 2000s, seasonal camps and undeveloped lots around the lake converted to year-round homes, increasing the population substantially.

A. Population

Population growth creates new needs for schools, housing and other public and private facilities. Understanding trends in population growth is therefore important when planning municipal facilities. Having some idea of what to expect, and when to expect it, can make decisions about the need for future town services a little easier for town officials and residents.

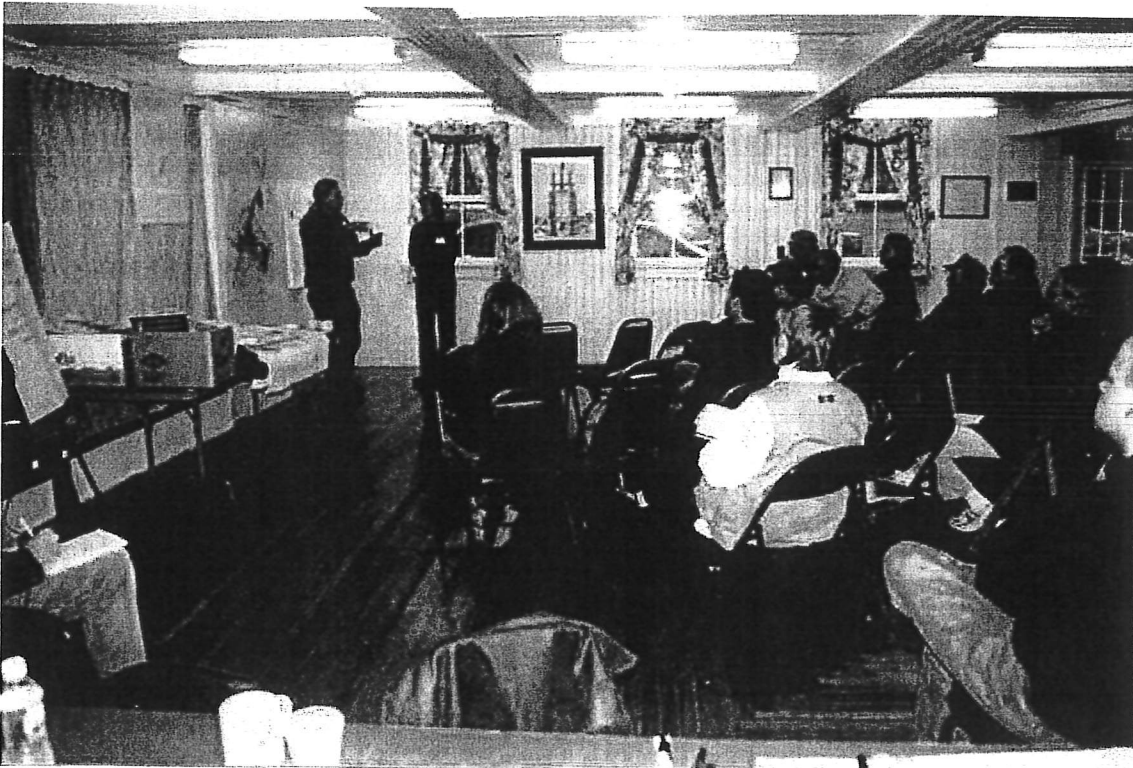


Chart 2-1 charts Middleton's population growth since the 1930s. Table 2-1 shows the data from a similar table from the 1981 Master. The table, at the time, looked back 20 years from 1981 and looked forward to 2000 for Middleton and the surrounding towns. As such, the numbers for 1990 and 2000 were estimates. The second section of the table shows actual Census data for the same area. The data indicates that growth for the entire region was underestimated and that comparative growth for Middleton was also underestimated. Middleton not only grew faster, but at a faster relative pace than expected.

Table Set 2.1 - Comparison of Previous Projections and Actual Population Growth.

Estimates from 1983 Master Plan

	1960		1970		1980		1990		2000	
	No.	%	No.	%	No.	%	No.	%	No.	%
Brookfield	145	2.1	198	2.5	385	3.3	560	3.5	730	3.4
Farmington	3287	47.7	3588	44.4	4630	39.9	5480	39.4	6150	39.2
Middleton	349	4.1	430	5.3	734	6.3	1050	6.7	1280	7.1
Milton	1418	20.6	1859	23	2438	21	2870	19.6	3300	18.8
New Durham	474	6.9	583	7.2	1183	10.2	1850	10.8	2480	11.4
Wakefield	1223	17.7	1420	17.6	2237	19.3	2880	20.1	3480	20
Total	6896	100	8078	100	11,608	100	14,408	100	17,410	100

Actual Data from US Census

Brookfield							518	3.21	604	3.32
Farmington							5739	35.51	5774	31.73
Middleton							1183	7.32	1440	7.91
Milton							3691	22.84	3910	21.48
New Durham							1974	12.21	2220	12.20
Wakefield							3057	18.91	4252	23.36
Total							16162	100.00	18200	100.00

Source: OEP Data Center, Municipal Population Projections: 2005 Publication

From the 1981 Master Plan:

"The population projections indicate that Middleton is expected to pass the 1000 population benchmark sometime between 1990 and 2000."

In fact, this threshold was reached prior to 1990. Growth has been explosive as compared to previous estimates and the Planning Board is working as part of this Master Plan to develop a program and land use policy that accommodates our regional share of this growth in a fashion that balances our future without compromising current and future citizens.

Table 2-2 shows the past and projected rates of growth for Middleton and its surrounding communities for each 10 year period between 1960-2000. Although Middleton grew by a whopping 21 percent during the last 10 years. Wakefield grew by 39 percent. For the next 20 years, Middleton's expected rate of growth will likely continue. Our findings indicate the following factors contribute to this growth pressure;

Top 3 Growth Factors and Ramifications:

1. Affordable land and housing (coupled with decreasing affordability in the Seacoast and Lakes region).
 - This has resulted in an extremely high percentage of new families moving to Middleton. These growing families require more space and reasonably affordable housing. The Seacoast's rising costs and lack of land have led to this narrow demographic migration.
 - These current patterns have led to observation of decreased acceleration in school populations for the southern tier. Middleton, in turn, has experienced accelerated growth in these cohorts, bucking the demographic trend espoused for other areas of the state that are constrained for land and growing housing costs.
2. Increase in employment opportunities in Pease/Dover region (coupled with increased access to this region from Route 16).
 - Transportation planning and funding has failed this region and has resulted in a failure to plan for alternative transportation and nodal development that permits people to live and work in the same location. As companies and employers continue to expand, transportation networks serving the automobile are the only solution left and will result in relocation to areas served by roadways. Middleton is within a reasonable commute of these areas and the State DOT shows no indication of transforming itself into a multi-modal system sponsor. As such, congestion will lead to more roads and more growth and thus more congestion, creating a negative feedback loop for sprawl, growth pressure, and development in Middleton served by roadways.
3. Favorable location between the coast, the lakes, and the mountains.
 - Sharing Middleton's natural resources and environment is beyond our control and the location of our town, hidden but accessible, between the Seacoast and the lakes and mountains, is just a natural factor. The key for this plan is to insure that the growth related impacts are mitigated in such a fashion that these resources are there for all our future generations to enjoy.

As long as these factors remain, the Planning Board finds that growth-related pressures will continue to affect our future vision. The Middleton Planning Board seeks to accommodate a balanced growth rate and a balanced growth demographic that preserves our environmental and cultural heritage in an economically sustainable fashion.

Chart 2.1 – Middleton Population Estimates and Projections 1930 – 2020.

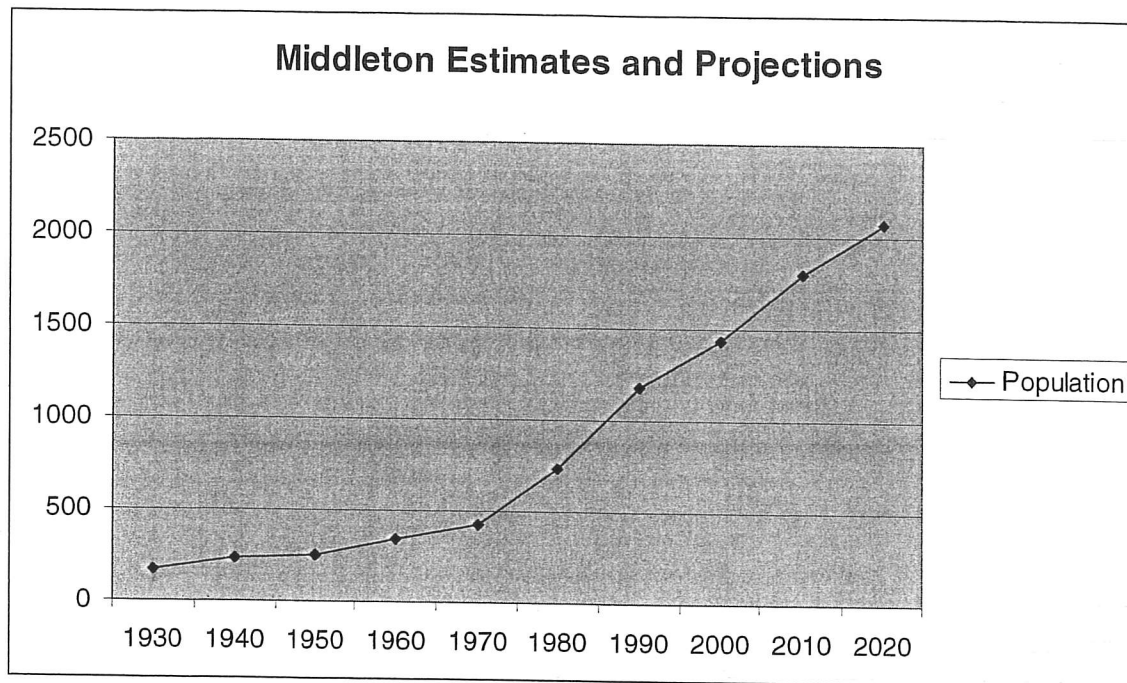


Table 2-2 Comparison of Population Growth Rates, Middleton and Adjacent Towns, State Ranking for 1990 – 2000 period.

	NH Municipalities - Rank Order by Percent Growth						1990 - 2000	
	1960	1970	1980	1990	2000	Change	%	
Community	census	census	census	census	census	1990	Change	Rank
Wakefield	1223	1420	2237	3057	4252	1195	39.09	14
Middleton	349	430	734	1183	1440	257	21.72	56
Brookfield	145	198	385	518	604	86	16.6	86
New Durham	474	583	1183	1974	2220	246	12.46	117
Milton	1418	1859	2438	3691	3910	219	5.93	169
Farmington	3287	3588	4630	5739	5774	35	0.61	204

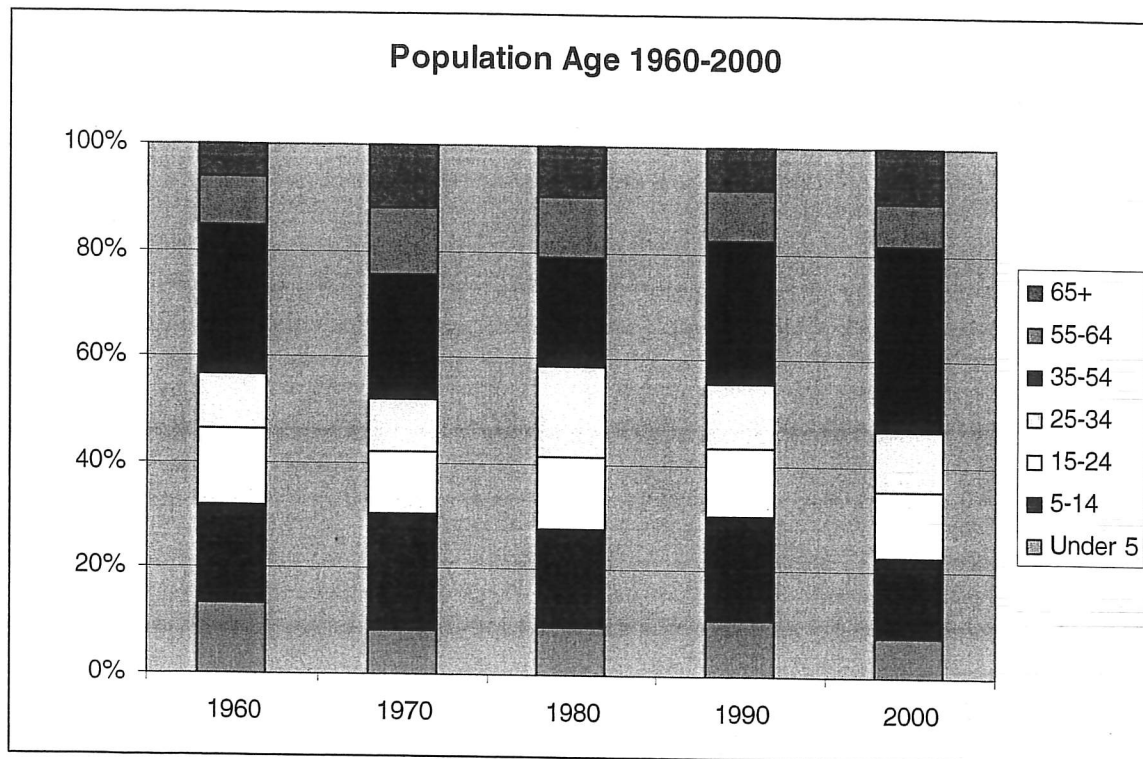
NH OEP Population Growth Trends, Publication 2005.

The age of the resident population is of particular importance when planning town services. Table 2-3 shows this data for 1960-2000

Table 2-3 Population Trends by Age Groups 1960-2000

Age Group					
	1960	1970	1980	1990	2000
Under 5	46	36	67	111	108
5-14	66	94	138	210	222
15-24	50	52	99	139	178
25-34	36	42	127	127	164
35-54	98	101	149	286	506
55-64	32	54	85	100	113
65+	21	51	69	85	149
TOTAL	349	430	734	1058	1440

In the previous version of the Master Plan concerns regarding two age groups were identified as having a direct impact on town services; the 0-14 age group, which require educational services; and the 24-44 age groups, which is of prime child bearing age. In the last two decades both groups have declined as a percentage of the whole. This is a trend worth noting as the aging population now presents new concerns for a wider range of services. While local municipalities are not commonly the provider of older persons needs in terms of health care, the Town must be cognizant of this demographic shift in terms of supporting social, emergency response, and support services. It is important to not focus on any one age group as a "tax issue" as was the enticement of the previous master plan, but to care for the larger issues of community development as a whole and our diversity as a means to building our future.



Source: US Census Data: OEP Data Center.

The two charts, Population Age 1960-2000 and Population totals show the percentage and then the total of age groupings in Middleton over the last 4 decades. While there has been a slight decrease in the percentage of school age children as a percentage of overall population make-up, the dramatic growth has resulted in a significant increase in the total number of school age children. The bottom three bars in each chart represent these age groups. The first chart displays the fluctuation and slight decrease as percentage. The chart below, in turn shows the explosion of overall growth and the particularly sharp increase in school age children.

The percentage has decreased by about 8%, but the overall totals have increased by close to 300%.

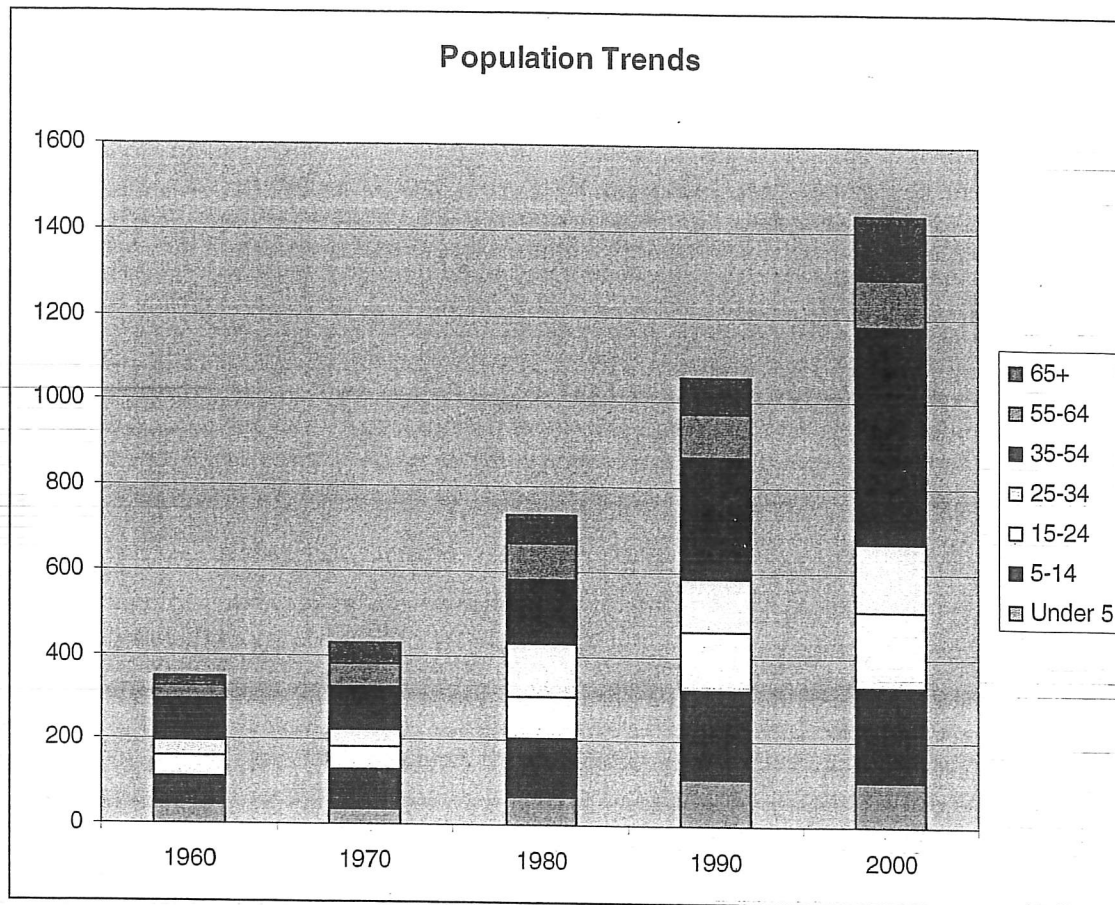


Table 2-4 says a good deal about recent residents in Middleton. It shows a substantial increase in the number of college graduates and persons with high school and post-high school education. This reflects a regional trend and is likely to continue.

Table 2-4- Years of School Completed 1990 - 2000

		1990	2000
High School		311	729
Bachelor's		45	75

It shows that over three-quarters of Middleton's adult population now has a high school diploma, compared to less than a third only 30 years ago. The number of persons with a high school diploma or better has more than doubled in Middleton since 1990. This rise in educational level is good for the community as a whole. One perception to be careful of is that educated newcomers become involved in local government politics, there may be some social dislocation of resident old timers who have seen things run one way as long as they can remember. Such dislocation, which is seen as typical in many growing rural towns, may generate ill feelings for some time to come.

Table 2-5 shows household, family, and per capita income levels. Rising incomes are consistent with the rise in educational levels. The increase reflects both rising incomes in Middleton residents and the migration of families with higher incomes. Still, income levels in Middleton remain far below regional and State averages. The median family income in Middleton in 2000 was \$48,529.00, the Strafford County average was \$53,075.00, while the State average was \$57,575.00. For comparison, the average family income in Farmington was \$44,788.00, Milton, \$48,033.00, and New Durham, \$52,941.00.

This is further indicated by Table 2-6. Whereas Middleton's per capita income rose by some 300 percent in the last 20 years, more than the surrounding communities in Strafford County, it is still less than 80 percent of the average per capita income for New Hampshire (Middleton = \$18,415, while the State of NH = \$23,844).

Table 2-5 Household, Family and Per Capita Income Levels 1980-2000

Median Household Income		
1980		15469
1990		33125
2000		43942

Median Family Income		
1980		16620
1990		34437
2000		48529

Per Capita Income		
1980		5486
1990		11604
2000		18415

The above statistics indicate that Middleton has seen a stabilization in the shift toward an increasing number of young families. Concurrently, the Town has seen a rise in both income and educational levels. While Middleton still trails other similar communities in such levels, it is anticipated that the trend will continue, provided land values remain relatively low, and availability high.

Table 2-6 Percentage of Persons in Poverty

Percentage of Persons in Poverty		
1980		12.9
1990		6.2
2000		7.26

Table 2-6 shows a reduction in the percentage of persons in poverty. It is not easy to determine if our citizens have had a general increase in quality of life or whether some have been forced to relocate. More research on this matter can only help insure that the Town is able to be a part of the solution toward eliminating poverty and balanced land use policies in conjunction with aggressive support for wage and employment protection are necessary to provide diverse and beneficial opportunities for all our citizens.

B. Housing

In 1980, there were 293 year-round homes in Middleton, about 58 percent of the total housing stock. In 2000, year round homes made up over 70 percent of all houses in town. This increase is associated with the migration of new residents to town, as well as the conversion of seasonal homes to year-round homes. The total addition to the housing stock between 1970 and 2000 is 360 units, a doubling of the number of units. The average person-per unit has continued to decrease, following national trends. In 1970, 13.3% were renter-occupied, currently less than 10%.

Table 2-7 Count of Housing Stock

Housing	1970	1980	1990	2000	2005 Estimate
Single-Family	130	122	569	628	732
Multi-Family	0	3	8	11	20
Manufactured	9	29	69	67	95
Total	139	154	646	706	847

Table 2-8 Housing Type

	1970	1980	1990	2000
Occupied	140	293	399	514
Owner			363	466
Renter			36	48
Vacant			255	192
Total	346	508	654	706

Seasonal	206	215	217	175
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Source: US Census OEP Data Center, Middleton Master Plan.

Table 2-7 shows that Middleton is still predominantly a single-family town. Only two percent of all year round homes are multi-family; 11 percent are mobile homes. Both show moderate increases. Multi-family units are limited through their ability to exist with septic and wells and common facilities with managing requirements.

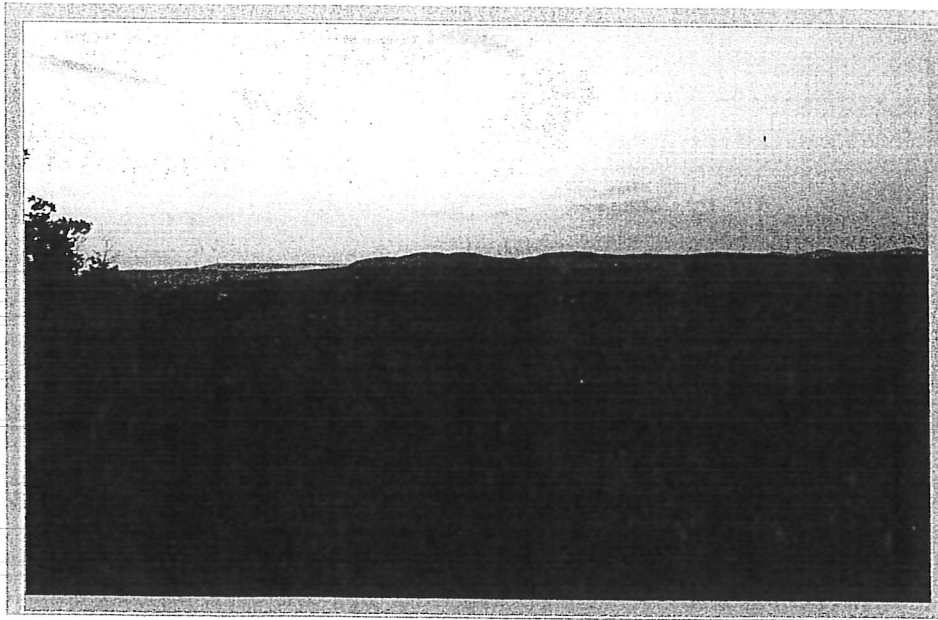
Chapter 3: Natural Resources

Land use patterns are often a direct result of a municipality's natural environment. Hillsides and river valleys, slope and types of soils often dictate where a community can and cannot develop. Where the properties of the natural environment were ignored, towns and property owners have had to bear the costs of unwise development.

Today we appreciate the ecological and economic benefits of our natural resources—clean drinking water, abundant and varied wildlife, outdoor recreation, and working forests. Consequently, the people of Middleton are as concerned about what resources should be permanently protected as they are about what kind of development should be encouraged in which parts of the town.

This chapter identifies natural resources that exist in Middleton. It is essentially a history of the original summary of the Middleton Natural Resources Inventory, presented to the Planning Board in May, 1981, by the Strafford Regional Planning Commission and the June 2000 update to this inventory. Along with that are new priorities and policy statements that concern our natural resources (not the least of which is the change in the very definition of "natural" resources).

It has long been recognized that slope, soil, wetlands, floodplains and aquifers are described in terms of their location and potential impact on development as part of community planning. For this chapter we have retained the discussion on specific constraints. A summary synthesizes this information in terms of development suitability.



Recommendations

- Insure compliance with current septic system setback requirements for important surface waters and wetland complexes, especially those associated with the Sunrise Lake.
- As Middleton experiences more development, consider revising current subdivision, site plan regulations and zoning ordinances to include requirements for proper erosion control and stormwater runoff Best Management Practices (BMPs) for all major residential subdivisions and commercial developments (e.g., disturbing > 20,000 sq. ft.).
- Detain and treat stormwater onsite for any new development without creating downstream impacts or inter-basin transfers of stormwater.
- Encourage open space preservation for some of the higher priority land areas identified by the Co-occurrence map of the 2000 Natural Resource Inventory, those high priority areas in State of NH Wildlife Action Plan, and areas identified by the Conservation Commission as important, including:
 - Sunrise Lake
 - The defunct Tanglewood subdivision
 - Moose Mountains Reservation and surrounding areas
 - Piper Mountain
 - Cochecho River Watershed
 - Moose Brook
 - Salmon Falls Watershed
 - Stratified-drift Aquifer as found in USGS report
- Recognize that preservation of open space may allow for local passive recreation areas, promote a sustainable working landscape, and help to maintain the rural character of our community. If not protected, these land areas will be subject to increasing development pressures, particularly residential development, which typically results in higher municipal service costs and a negative fiscal impact.
- Initiate more careful attention to stormwater management and erosion control for all development projects. Treat all development as part of the eventual build-out of the Town and implement water protection through erosion and sedimentation control and stormwater management. It is important to adopt this approach long in advance of problems.
- Initiate efforts to identify potential high value areas that may be designated as prime wetlands, according to established criteria, and consider pursuing state recognition of these wetlands.

- Revise current subdivision and site design regulations to clarify that post-development peak flow rates will not exceed predevelopment flow rates for the smaller runoff events (i.e., 2 year design storm) as well as the larger storm events.
- Revise subdivision and site design regulations to require developers proposing any new large developments (i.e., disturbing more than 10 acres) to conduct a watershed-wide hydrologic analysis to evaluate the cumulative effect of how additional impervious areas in the watershed might affect the timing and magnitude of peak flow conditions downstream. This analysis will include a review of the flow capacity of existing downstream drainage or conveyances structures (i.e., culverts, bridges, etc.).
- Review the neighboring community zoning ordinances to insure consistency and collaboration in terms of land areas within shared watersheds. Work with regional and state entities to help initiate planning on a watershed basis for Sunrise lake.
- Continue to assist with and obtain conservation easements through non-profit, state, and federal funding programs on large, undeveloped parcels in Town. These should ideally be guided by priorities set by this plan and a formal Open Space Plan.
- Work with Town departments to insure that Town vehicles and equipment are fueling and completing outside washing activities in a safe manner.

Wetlands

- Continue the efforts of the Conservation Commission to identify potential high value areas that may be designated as prime wetlands, according to established criteria, and consider pursuing state recognition of these wetlands.

Floodplains

- Review and revise current subdivision and site design regulations to clarify that post-development peak flow rates will not exceed predevelopment flow rates for the smaller runoff events (i.e., 2 year design storm) as well as the larger storm events.
- Review and revise subdivision and site design regulations to require developers proposing any new large developments (i.e., disturbing more than 10 acres) to conduct a watershed-wide hydrologic analysis to evaluate the cumulative effect of how additional impervious areas in the watershed might affect the timing and magnitude of peak flow conditions downstream. This analysis will include a

review of the flow capacity of existing downstream drainage or conveyances structures (i.e., culverts, bridges, etc.).

Part I – Traditional Planning - Suitability

A. Slope

Development decisions should always consider the slope of land. Slope is simply a measure of the steepness of land. The degree of slope is directly related to the land's capability to support structures. Development on steep slopes can reduce soil stability, resulting in significant soil erosion and causing siltation in downs-slope water bodies. In addition, structural instability of foundations and potential septic system failures on steep slopes can be costly to both property owners and municipalities.

Slope is expressed as a percentage, and represents rise in elevation over a specific horizontal distance. Thus a 10 percent slope would represent a rise in elevation of ten feet over a horizontal distance of 100 feet, or a rise of one foot over a distance of 10 feet. Five slope categories were mapped for Middleton, and are summarized below.

1. *0-3 percent slope*- These areas present few, if any limitations for development. Large buildings, roads and active recreation areas such as playing fields are suitable on these slopes. Very flat sites may pose drainage problems requiring special construction techniques. Examples include areas both north and south of Hollow Road, and Kings Highway. Another, smaller area exists west of the Middleton Corners intersection.

2. *3-8 percent slope*- These areas are suitable for most land uses, including single-family housing on small and medium lots, apartment buildings and other types of multi-family housing, and

most of the uses listed above.

Limitations for large buildings increase at the upper extreme of this category. A vast portion of central Middleton falls into this category, including areas just on the north side of Ridge Road, east of Kings Highway running to Horn and Jones Brook. Some areas north and west of Sunrise Lake also fall into this category.

3. *8-15 percent slope*- Development costs and the potential for erosion increase significantly in this category. Suitable uses are single family houses on large lots, and low density multi-family housing such as town-houses and garden apartments. Measures to control runoff and erosion should be used. Further, public safety is impaired if roads are permitted at gradients of more than 10 percent for any length because ambulances, fire trucks, and other equipment cannot move at sufficient speeds to facilitate firefighting and rescue attempts. One such area runs east of the New Durham-Middleton border to the lower slopes of the Middleton Corners intersection, and north of New Durham Road to Birch Ridge. Smaller, limited areas can be found west, and south of Sunrise Lake and to the south of most of the northern mountains.

4. *15-25 percent slope*- The cost of site development, and the potential for erosion are major considerations in these areas. Adequate drainage and erosion control measures are necessary due to the amount of runoff generated on these slopes. Terraced developments, such as townhouses with multi-level entrances, are possible on these slopes when runoff is properly engineered- an expensive

proposition. Such areas are prevalent south of Mount Jesse and to the north of the intersection of Ridge and New Portsmouth Road. Other limited areas are scattered throughout many of the mountain ranges.

5. *More than 25 percent significant slope-* Almost no development should occur on these slopes. Development costs and potential environmental damage are extreme. Shallow soils and high runoff and erosion rates pose severe limitations, so that even a slight disturbance of the vegetative cover can lead to major problems. These areas are best left in open space. This would, of course, include many of the mountain ranges found in Middleton. Of particular significance is the ridge that runs north-south to the west of Ridge Road.

B. Soils

Use of land must consider the capability of the underlying soil to support such changes in the natural environment. Soil suitability for various forms of development can vary from one soil type to another. In many cases, engineering and design can overcome specific soil limitations. However, increased costs are generally associated with soils-related problems. In addition, some engineered solutions to soil problems can have negative impacts on other areas of the environment. This is often overlooked.

Middleton's soils have developed as a result of the interaction of climate, vegetations, and erosion upon the areas geologic materials and topography. Geologic materials in Middleton consist of jumbled rocky deposits (till), sand and gravel deposits (stratified drift), and much deposits (swamp and alluvium).

Differences in the texture and mineral composition of these deposits led to the development of different soils on them. Water, wind, climate, vegetation, and animals have further modified the soil types. Location (hilltop, valley, plain etc) also contributes to differences in soil types.

Only the major soil types and associated limitations found in Middleton are discussed below. For a detailed discussion, please review the Middleton Resources Inventory.

The source of the soils data is the Detailed Soils Survey of Strafford County by the U.S. Soil Conservation Service, whose accuracy is considered to be within plus or minus three acres. Therefore, on site inspections are absolutely necessary when considering the development of any particular land parcel. For the development of town-wide land use plans or general zoning districts, however, such accuracy is more than sufficient.

Middleton's soil types were broken down into the following categories:

1. *Wet soils-* These wetland soils have severe limitations because of their high water table. They are unsuited for foundations or septic systems. Filling and developing wetlands destroyed their valuable natural functions, such as floodwater retention and wildlife habitat. Such areas do have good open space and recreation potential. These soil types are located generally throughout the central and south-central portion of Town, concentrated along the Horn-Jones Brooks and the Branch River. There is a large wetland area south

of the Kings Highway-Hollow road intersection, with other wet soils scattered around Sunrise Lake. Any changes in the wetlands around the water bodies may significantly alter surface water characteristics.

2. *Seasonally wet soils*- These soils have limitations because of their seasonally high water tables. Buildings can experience wet basements and resulting cracked foundations, while seasonally submerged septic systems leach fields can lead to well and groundwater pollution. Such soils are most concentrated to the east and west of Kings Highway, both north and south of Middleton Corners.
3. *Sand and gravelly soils*- These soils offer few limitations to development. However, intensive development with impervious surface (roads, parking lots, etc) can prevent the recharge of underlying groundwater supplies. Because these soils are so permeable, water at the surface quickly infiltrates the soil. For this reason, septic tanks must be carefully constructed to prevent well and groundwater contamination. Those small sand and gravel deposits around Moose Brook should be protected as they are in the area of Middleton's only future groundwater supply potential. Other areas can be found to the south of, and between Perkins Mountain and Mount Jesse.
4. *Deep, well drained stony (non hardpan) soils*- These soils present few limitations for development. Stones and clay lenses may hinder foundations and septic tank construction and drainage in certain areas. The soil type is found in abundance in Middleton scattered throughout the town.
5. *Deep, well drained stony (hardpan) soils*- These soils may present limitations for septic systems because of the impermeable hardpan layer, and the possibility of a "perched" water table above the impermeable hardpan. Groundwater pollution is possible if septic systems are not properly located and constructed. Development should be low density. Two areas of such soils have been identified in Middleton. The first is located southwest of Sunrise Lake, and if not watched, could lead to problems for the lake. The second area runs north-south along the east side of Ridge Road, adjacent to steep slopes.
6. *Shallow to bedrock soils*- Such soils limit development because of their shallow depth. Excavation for foundations, septic systems, or utility lines is difficult and expensive, often requiring blasting. Septic systems may not function properly because of shallow leach fields. Development should be on sufficiently large lots to insure proper function of sewage disposal systems. While such areas can be found throughout the mountains in the north, the areas most likely affected by future development can be found southwest of Sunrise Lake.
7. *Highly erodible soils*- Development upon these soils should always employ erosion control techniques. There should be minimum disturbance of natural vegetative cover. Care should be taken to

prevent siltation of stream. Few such soils were identified in Middleton.

C. Wetlands

While wet soils and their limitations were identified earlier, it is important to emphasize the value of wetlands to the community. In the past this was overlooked by developers, who argued that there was a need to improve the value of such useless parcels. This led to a pattern of mismanagement and permanent destruction of what is now recognized as a most useful resource. Some of the benefits of wetlands include the following:

1. *Flood Protection*- Wetlands provide flood protection by storing excess runoff from storms and then slowly releasing this water downstream.
2. *Supplement stream flow*- During low flow periods, wetlands augment stream flow by slowly discharging excess water stored during times of high flow.
3. *Wildlife habitat*- Wetlands serve as essential habitats and nurseries for certain species of birds, fish and wildlife.
4. *Timber harvest*- Some wetlands may serve as a source of valuable harvest timber.
5. *Sediment and nutrient trap*- Wetlands act as traps which filter out organic matter, other nutrients, silt and other sediments. They can prevent their entry into adjacent water bodies, particularly when the ground is disturbed during development in shoreline areas.

Wetlands, commonly referred to as bogs, marshes, swamps and meadows, are low lands covered with shallow standing and

sometimes intermittent water. They are characterized by poor drainage.

Wetlands are found throughout Middleton, because of the poorly drained nature of so much of its soils. Extensive wetlands can be found in the following areas:

- on both the east and west side of Kings Highway
- bordering Horn and Jones Brooks, Branch River, and Moose Brook, among others;
- between Ridge and Hollow Roads; and
- around Sunrise Lake

Because of their useful role, it is highly recommended that wetlands become fixed open space elements in Middleton.

D. Floodplains

Floodplains provide storage for water level changes in rivers and lakes. These changes are generally seasonal, and are directly related to the heavier spring and fall rainfalls, as well as spring snowmelt.

A floodplain is that occasionally flooded area of land adjacent to a river or lake, that is above the water level in the summer and below it, or covered, during periods of high flow. The width of the floodplain varies with the amount of stream flow, with higher flow rates increasing the amount of area flooded.

Because of their value as natural flood areas, the U.S. Department of Housing and Urban Development has identified areas of flood hazard for their Flood Rate Insurance Program. Middleton belongs to the program; a Flood Hazard Boundary Map has been completed. The

following areas were identified as being within the 100-year flood hazard boundary (that is, the area likely to flood, on average, once every 100 years):

1. A zone surrounding Sunrise Lake and including the drainage brook that is a branch of the Cocheco River;
2. An area beginning at the Horn and Jones Brook confluence and running south to the Middleton-Milton border, on both sides;
3. An area beginning at the Branch River-Hall Brook confluence and running to the Milton-Wakefield border.

Middleton should protect these areas from overdevelopment through their zoning ordinance and building regulations. This will avoid rising flood levels in downriver areas due to construction in the floodplain (which decreases overall storage capacity), and keep Middleton eligible for the federal flood insurance protection.

E. Surficial Geology-Aquifers

Principal concern here is with groundwater supply, or aquifers. The amount of groundwater found in any location depends on the nature of the underlying geologic material. Two geologic factors are important. First, the geologic material must be porous; that is, it must have some ability to store water. Water is stored in the small pores, or air spaces between particles. Materials such as sand and gravel are most porous and can therefore store the greatest quantity of water. In dense material such as bedrock, water is stored only in joints or fractures (cracks in the rock). Thus bedrock is much less porous than gravel.

Secondly, the material must be permeable. Permeability, or the ability to transmit stored water, is dependent on the interconnection of the air spaces or pores; coarse grained deposits have greater permeability than fine grained deposits, while ledge may not be permeable at all, if its' fractures do not intersect.

Aquifers are water bearing geological formations with both high porosity and permeability. The only sizeable aquifers in Middleton are of the stratified drift type' that is, porous, permeable layers of sand and gravel. Such aquifers are capable of supplying only small municipal and rural water districts and commercial and light industrial use.

The only aquifer in Middleton, of moderate groundwater potential, lies along Moose Brook as it crosses Kings Highway. Efforts should be made to maintain the area as it is, especially protecting the aquifer recharge areas. This would include limiting the amount of impermeable surface construction and excavation activities in the area that may alter present recharge conditions. Limiting the use of road salt in this area would also keep the groundwater supply free of salt contamination.

F. Summary- Suitability Section

The Land Use Suitability Map prepared for Middleton by the Strafford Regional Planning Commission summarizes all the natural resource data collected for the Town and creates a single composite map for use in community plans. The map suggests which land in Town is most appropriate and which is least appropriate for development, based on

natural resource factors only. Obviously, the physical characteristics of the landscape are not the only criteria on which to base new zoning and/or community development decisions. For example, a parcels location- it is inaccessible by road- or its history- it was owned and farmed by a famous Middleton Revolutionary War Hero- are two other important factors which are not included. But the landscapes physical ability to support development without incurring environmental damage, and subsequent costs to the taxpayers, is still important data for any land development decision. This is particularly true for rural communities, where community resources to overcome natural constraints (e.g. sewers or water purification plants) are scarce to non-existent.

The Land Use Suitability Map must be generalized to determine the location of large tracts of the Town where suitabilities are generally favorable to development. Small areas of recommended resource protection (e.g. wetlands), may be included within the bounds of such favorable districts, with specific zoning regulations concerned with wetland development.

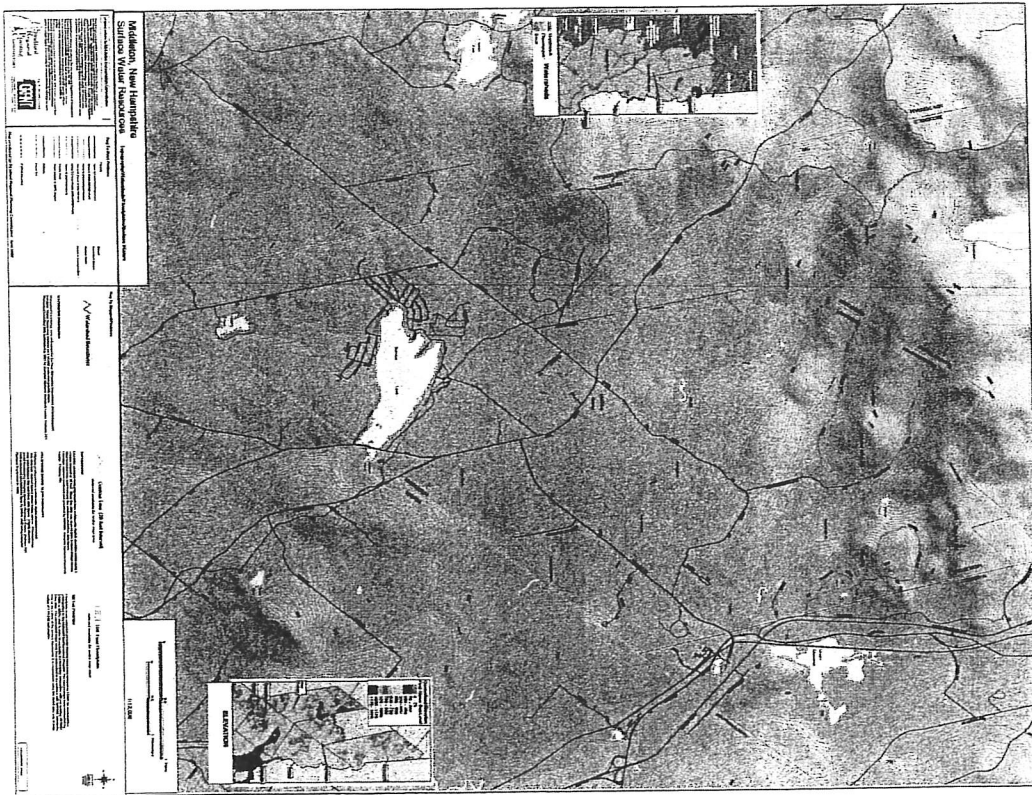
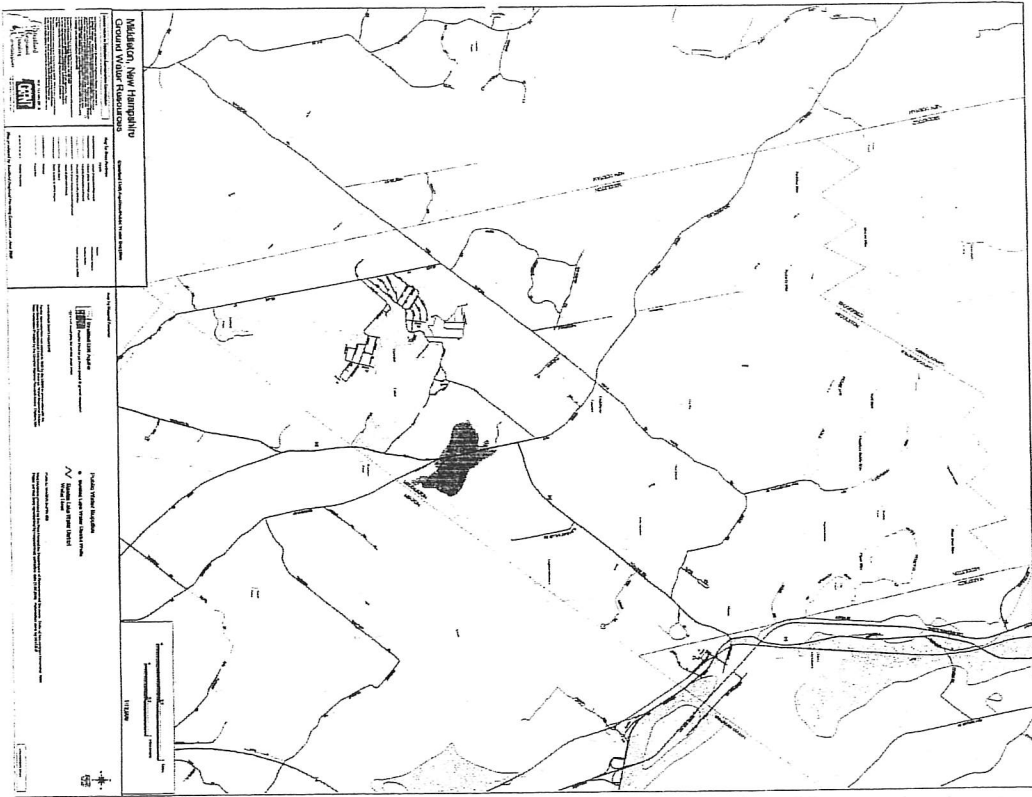
If one generalizes from the Land Use Suitability Map, certain patterns become clear. Most of the land best suited for development tends to be concentrated south of New Durham Road/Ridge Road, although there is one area of some 100 acres accessed by Jones Road north of New Durham Road. Another large area of moderate suitability (some 300+ acres) is situated just northwest of the intersection of Ridge Road and New Portsmouth Road. These areas might

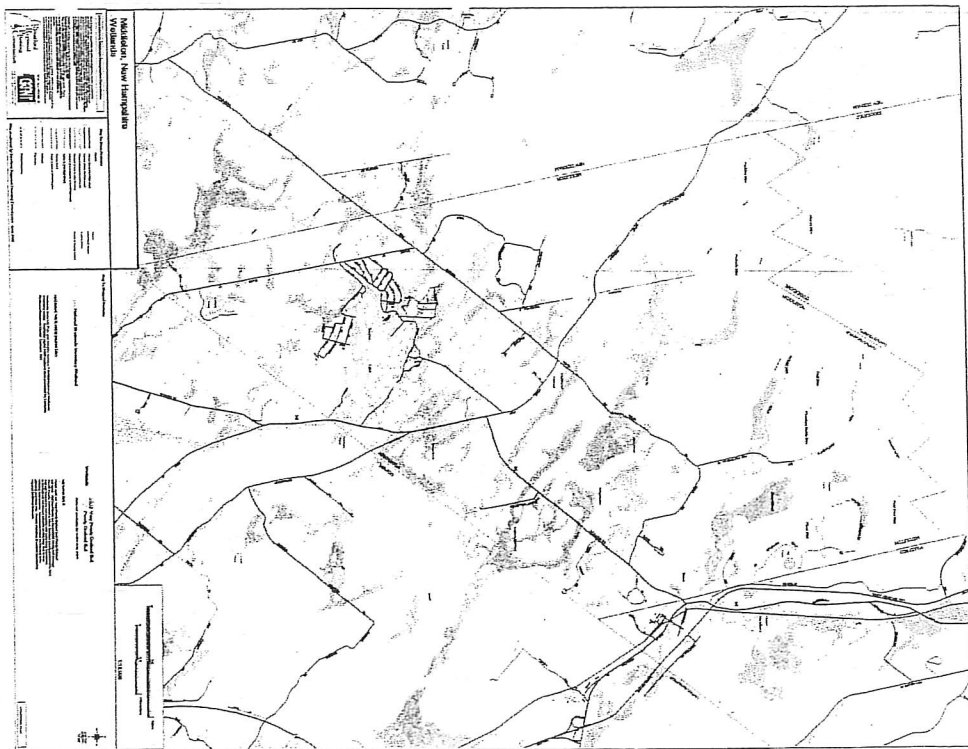
constitute residential zones of the highest allowable density.

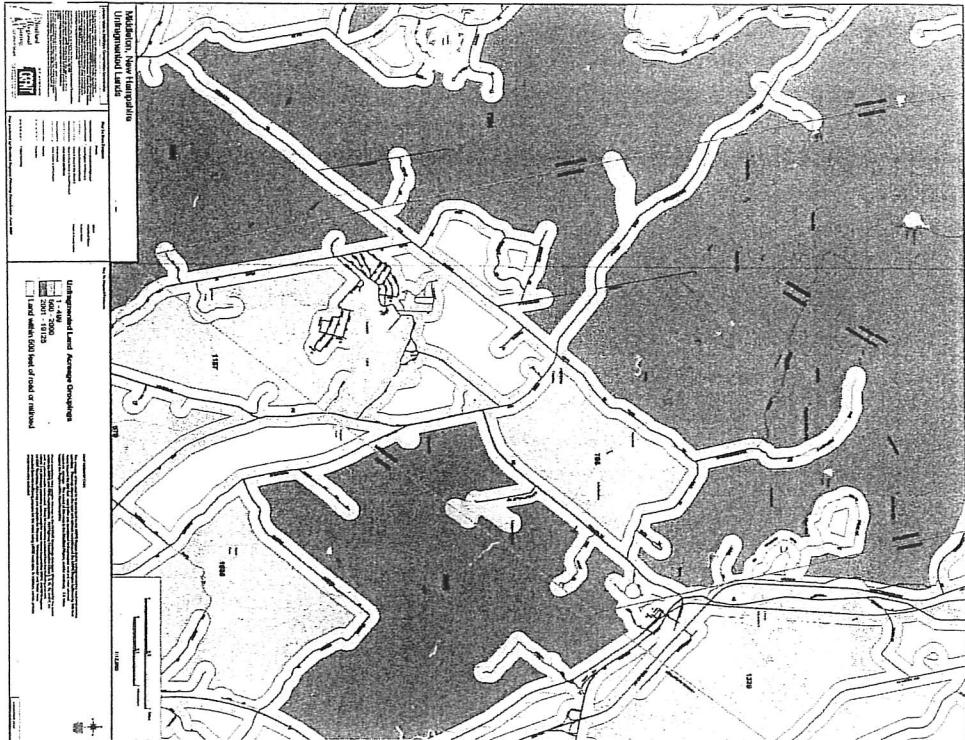
However, these areas are heavily interspersed with wetlands and some floodplain. It is strongly recommended that a wetland protection overlay district be created, more strictly regulating development in these fragile areas. At minimum, a stream protection district should be created for the Cocheco River branch south of Sunrise Lake, Moose Brooks south of Hampshire Shore Road (encompassing the whole aquifer/wetland area crossing Kings Highway), Jones Brook south of its confluence with Horn Brook, and the Branch River south of its confluence with Hall Brook.

Other development districts might be the area west of Kings Highway and north of New Durham Road, (the eastern slope of Birch Ridge), or the area between Moose Mountain and Bowser Pond Roads. These areas are recommended for a lower density of use, that is, a large minimum lot size; because the areas are only "just" suited for development- slope is the principal limiting factor here. The remainder of the northern half of Middleton, except along principal highways and roads, might constitute a conservation area where only very low development densities were permitted if road access is available. A higher density would be permitted along the principal roads.

One last note: As stated earlier, Middleton's Land Use Suitability Map suggests possible areas of development, based on physical features alone. Other factors, community attitudes, are not included on the map. If some areas are physically capable of development, but residents express concern over further developing these same areas, such conflicts between community values and land capabilities can only be resolved by town residents themselves. The town must decide for itself what values should take precedence and where it is most willing to accept and accommodate the growth that will eventually come.









Middleton, New Hampshire
Co-Occurrence: Wetlands, Aquifers, Farmland Soils, Protected Lands, Unfragmented Land

Legend

Wetlands: Shaded areas represent various types of wetlands, including wetlands of high biological productivity, wetlands of moderate biological productivity, and wetlands of low biological productivity.

Aquifers: Shaded areas represent various types of aquifers, including aquifers of high biological productivity, aquifers of moderate biological productivity, and aquifers of low biological productivity.

Farmland Soils: Shaded areas represent various types of farmland soils, including farmland soils of high biological productivity, farmland soils of moderate biological productivity, and farmland soils of low biological productivity.

Protected Lands: Shaded areas represent various types of protected lands, including protected lands of high biological productivity, protected lands of moderate biological productivity, and protected lands of low biological productivity.

Unfragmented Land: Shaded areas represent various types of unfragmented land, including unfragmented land of high biological productivity, unfragmented land of moderate biological productivity, and unfragmented land of low biological productivity.

Key to Symbols

Wetlands: Shaded areas represent various types of wetlands, including wetlands of high biological productivity, wetlands of moderate biological productivity, and wetlands of low biological productivity.

Aquifers: Shaded areas represent various types of aquifers, including aquifers of high biological productivity, aquifers of moderate biological productivity, and aquifers of low biological productivity.

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Unfragmented Land: Shaded areas represent various types of unfragmented land, including unfragmented land of high biological productivity, unfragmented land of moderate biological productivity, and unfragmented land of low biological productivity.

Number of Co-occurring Features

Number of Co-occurring Features	Count
1	1,333
2	1,333
3	1,333
4	1,333

Notes:

This map displays a combination of wetlands, aquifers, farmland soils, protected lands, and unfragmented land. The map is based on data from the National Wetlands Inventory, the National Aquifer Inventory, the National Farmland Inventory, the National Protected Lands Inventory, and the National Unfragmented Land Inventory.

Legend:

Wetlands: Shaded areas represent various types of wetlands, including wetlands of high biological productivity, wetlands of moderate biological productivity, and wetlands of low biological productivity.

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Summary Statistics

Feature Type	Count
Wetlands	1,333
Aquifers	1,333
Farmland Soils	1,333
Protected Lands	1,333
Unfragmented Land	1,333

NH Natural Heritage Inventory Locations

Second Minute

Legend

Wetlands: Shaded areas represent various types of wetlands, including wetlands of high biological productivity, wetlands of moderate biological productivity, and wetlands of low biological productivity.

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Part II – Innovative Planning – Resource Identification, Assessment, and Conservation

Once terrestrial and aquatic resources are lost to development, there is virtually no possible way to resurrect these resources and restore their value and importance.

Innovation:

- Consider innovative ways to supplement volunteer labor through a relationship with the University of New Hampshire for federal work-study positions and student assignments that may relate to natural resource issues.
- Actively and quickly research innovative zoning and regulatory controls to protect these resources from development pressure.
- Actively pursue funding sources for protection of natural resources.
- Promote the preservation of habitat for wildlife wherever possible especially within the context of open space developments using the State Wildlife Action Plan as a basis for action.
- Consider more flexible methods of protection other than outright and total protection of all resources. Such techniques may include partial development easements, public private partnerships for conservation development design, and public-private partnerships for leveraging grant funds for land conservation and protection.
- Consider partial development easements as a protective device that rewards landowners that are unable to afford total protection of entire parcels and be willing to work with landowners that choose these methods.
- Consider a graduated approach to resource protection based upon a list of priorities identified as part of this Master Plan linking development of lower priority resources in exchange for protection of higher priority resources.
- Enact a comprehensive approach to open space protection and develop a separate Open Space Plan that includes the necessary components for a comprehensive approach to open space planning as follows:

Vision – supplies all aspects of support and guidance to Town Boards and Officials in responding the threatened losses of open space and assistance in pursuing fund resources from various entities, private and public.

Education – provides the framework for an outreach effort to landowners, developers, citizens, and governmental officials at all levels on the benefits and

costs of open space protection and the opportunities and techniques for open space protection.

Action – identifies responsible parties for completing the tasks called for in the Open Space Plan and assists in the formulation of action plans and support for funding these responsibilities.

Chapter 4: Economic Base

This chapter analyzes several economic characteristics of Middleton. It examines factors associated with the labor force, particularly occupational and income levels. It then examines assessed valuation, to determine whether changing income patterns have been translated into an improved revenue base. Finally, it examines regional employment characteristics, focusing on commuter movement and location potential in Middleton. This is important when considering the long-term growth pressures that are expected to impact Middleton's future.

Even considering the economic slowdown in the late 2000s, the Planning Board expects that increased employment opportunities to the south in the area of Somersworth, Rochester, Dover, and even Pease will continue to exert growth pressure on Middleton as an accessible and affordable "country-town". Commercial growth in Dover, Somersworth, and Rochester has continued to be strong. Dover's Route 9 has also seen substantial commercial development recently with the addition of restaurants, hotels, a new commuter bus terminal, banks, retail stores and ongoing development in the nearby business park. Rochester has seen the expansion of Wal-Mart and other retail businesses along the Route 11 Corridor, as well as new shopping plazas off the Route 16 corridor. Based on the last few decades of development patterns, Middleton will likely experience development pressure as the labor force required for ongoing commercial development to the south.

A. Labor Force and Income Characteristics

An important part of the economic base of any community is its labor force. Professional, technical and skilled laborers generally have greater income potential, which translates into greater amounts of disposable income invested in the community (e.g. housing). Chapter 2 already pointed out improved educational levels among Middleton residents, which has an indirect effect upon income.

Table 4-1 presents employed persons by occupation for 1980 and 2000. The table supports the contention that formal education levels among Middleton residents are increasing. Both professional and service categories have increased in numbers.

Table 4-1 Employed Persons by Occupation
Percentage of Work Force
1980-2000

	1980	2000
Professional/Technical Mgmt	16.8%	21.3%
Sales/Clerical	12.8%	18.5%
Skilled Labor	56.3%	43.7%

Farm & Forestry	0.0	0.0
Services	14.1%	16.5%

Sources: 1980 and 2000 Federal Census

This has probably translated into improved income levels among year-round residents. The table however is not entirely reliable, since skilled labor category definitions changed between the two census periods.

The product of changing labor characteristics is shown in Table 4-2. Median family income between 1980 and 2000 has increased by 192 percent, more than neighboring towns in the County. Despite that sizeable increase, however, Middleton remains among the lowest in the County. In 2000, the median family income for Middleton was 15.7 percent less than that for the State as a whole, and 8.5 percent less than that for Strafford County.

Table 4-2 Median Family Income

	1980 Median Family Income	1980 as % of State	2000 Median Family Income	2000 as % of State	% change 1980-2000
Farmington	16,549	83.9	44,788	77.8	170.6
Middleton	16,620	84.3	48,529	84.3	191.9
Milton	16,989	86.1	48,033	83.4	182.7
New Durham	16,842	85.4	52,941	91.9	214.3
Strafford Cnty	18,899	95.8	53,075	92.2	180.8
State of NH	19,724	100.0	57,575	100.0	191.9

Source: 1980 and 2000 Federal Census

Table 4-3 shows the same problem. While per capita income in Middleton increased over 235 percent, more than many of its neighbors in Strafford County, Middleton still lags behind the State and County averages. This again demonstrates greatly improved income potential (possibly related to changing labor characteristics), but still behind more per capita income levels of surrounding communities. The net result is less than average revenue entering the community.

Table 4-3 per Capita Income

	1979	% of State	1999	% of State	% change 1979-1999
Farmington	5,321	75.9	16,574	69.5	211.5
Middleton	5,486	73.2	18,415	81.4	235.7
Milton	5,648	80.5	18,092	75.9	220.3

New Durham	6,087	86.8	22,139	92.8	263.7
Strafford Cnty	6,347	90.5	20,479	69.5	222.6
State of NH	7,013	100.0	23,844	100.0	240.0

Source: 1980 and 2000 (using 1999 dollar amounts) Federal Census

A fair barometer of community investment in any town is its assessed valuation. Table 4-4 shows Equalized Valuation for selected communities. The same pattern for income levels has held firm here. While Middleton has grown at a rate comparable with surrounding communities in terms of equalized assessed valuation, its total valuation is still below that of neighbor communities.

Table 4-4 Equalized Valuation for Selected Communities, 1981 and 2000

	1981	2000	% of Change
Farmington	85,871,411	221,309,018	157.7
Middleton	24,084,281	76,836,050	219.0
Milton	50,215,854	182,105,318	262.6
New Durham	54,215,854	194,963,893	259.6
Strafford County	1,659,318,757	5,492,615,177	231.0
State of NH	25,562,386,867	86,703,541,057	239.2

Source: New Hampshire Department of Revenue Administration

The above suggests that should Middleton desire or require an expansion of municipal services (e.g. education), there will be a need to diversify income levels and increase the assessed valuation to provide for a balanced tax impact to the Town. Present revenue resource levels would be insufficient, as they stand, for any extensive expansion without a significant impact to the taxpayers.

B. Regional Employment

An important factor to increasing income levels and assessed valuation is employment outlook. Commuting patterns based on the place of employment are shown in Table 4-5. Both Milton and Middleton have a low percentage of locally based employment. Commuting patterns from Middleton suggest movement south, mainly to the Rochester/Farmington Job Center and to the Dover/Somersworth Job Center. While not unusual among area communities, this does indicate a dependence on other communities for employment.

Expansion for the commercial and business sectors in Dover, Rochester and Portsmouth would likely increase Middleton's attractiveness as a bedroom town, as land availability diminishes in communities to the south.

Locally-based employment will not likely become a significant factor in Middleton for the near future. While there may be potential to add to assessed valuations through the expansion of existing facilities, the development of commercial property for goods and services would be limited to small-scale facilities and would likely search for town-center locations. The number of residents and commuting access is insufficient to support commercial concerns of any size.

Thus, unless there is a sudden development resulting in new industry in town, Middleton's assessed valuation will continue to be dependent on the expansion of residential development, particularly upper-income residential development.

Table 4-5 Commuting Patterns-Place of Employment: 2000

	Middleton	NH	US
Transportation To Work (percent)			
Public transportation	1.5	0.7	4.7
Private transportation	92.1	91.6	88
Walk	1.7	2.9	2.9
Work at home	3.5	4	3.3
Commuting Time (minutes)			
Average travel time to work	36	25	26
Average travel time to work using public transportation	33	47	48
Average travel time to work using private transportation	36	25	24

Source: 2000 Federal Census

	1990	2000
Drove Alone	459	590
In carpools	80	101
Public	10	11
Other	6	9
Walked/Home	9	13

Travel Time	1990	2000
0-9	58	45
10-24	183	254
25-39	132	167
40-59	103	157
60 or more	82	101

Total 558 724

Percent	1990	2000
	10.4	6.2
	32.8	35.1
	23.7	23.1
	18.5	21.7
	14.7	14.0

Total 100.0 100.0

Chapter 5: Community Facilities Capital Improvements Programming

I. Introduction.

Community facilities are those physical facilities, owned and operated by the town, that provide some service to town residents. In most cases, facilities are purchased and supported through taxation and require approval by town residents during the budgetary process. We this update of the Middleton Master Plan and in light of our endeavor to undertake a Capital Improvements Program the Planning Board adopts the following 3 goals for this planning period,

1. The Planning Board should create an easily updated and maintained inventory of town facilities.
2. Prepare this inventory so that Town Officials are aware of when a facility may need replacement or initial purchase.
3. Itemize the projected cost of capital and operations expenses to plan for its offset rather than force a more crisis-response budgetary process.

It is important that town officials be aware of what services of facilities may be wanted by town citizens. When it is perceived that town people want or need to add to the stock of facilities, there will be necessary planning, financing, and most likely compromise, before such a facility becomes a reality.



II. Survey Results – 2005

In March of 2005 during Town Meeting an informal survey was completed. The survey was anonymous and was tabulated over the year. The Planning Board also completed a survey and both results are provided to give an insight into the citizen attitude and input on community facilities.

This Chapter recommends that a facility inventory for Middleton be developed in conjunction with a new Capital Improvements Program, and makes recommendations concerning future additions, based on resident perceptions and recommendations by department heads.

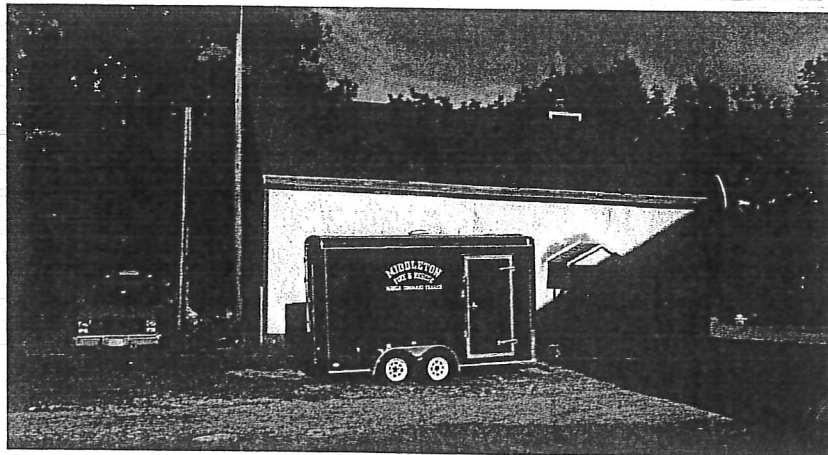
A. Fire and Ambulance

The 2005 Town Meeting Survey reported heavy weighting toward Good/Very Good for fire protection and Good for ambulance service.

The following chart depicts the nature of calls for the last three years for the Town of Middleton:

Fire Calls	2004	2005	2006
Ambulance	65	68	82
Fire Service	66	57	52
Inspections		59	
Mutual Aid Given	8	16	28
Mutual Aid Received		15	8

The citizen survey completed for the 1981 Master Plan ranked fire protection number two among town services considered unsatisfactory. The response of the Town to this concern appears to have addressed some of these perceived concerns. With projected growth, the Town will have to respond proactively to address the impacts of increased growth in terms of facilities, staffing, and infrastructure.



B. Police

The 2005 Town Meeting Survey reported heavy weighting toward Good/Very Good for police protection.

The following chart depicts the nature of service provided by the police department for the last four years:

Police Calls	2003	2004	2005	2006
Calls	562	596	664	806
Arrests	62	44	55	51
M/V Summons	114	239	257	215
M/V Warnings	939	1172	1180	996
Accidents	28	14	23	
Total	1705	2065	2179	2068

The Police Department operates a base radio unit and a mobile unit used in the cruiser. Both are considered to be in poor condition and will need replacement, with the mobile unit likely being needed first. The town should investigate the possibility of the fire and police departments sharing the same base unit, in order that costs be reduced in the long term.

In 1981 the Chief noted a problem concerning staffing. Particularly in the summer season, it was felt that one full-time officer was inadequate.



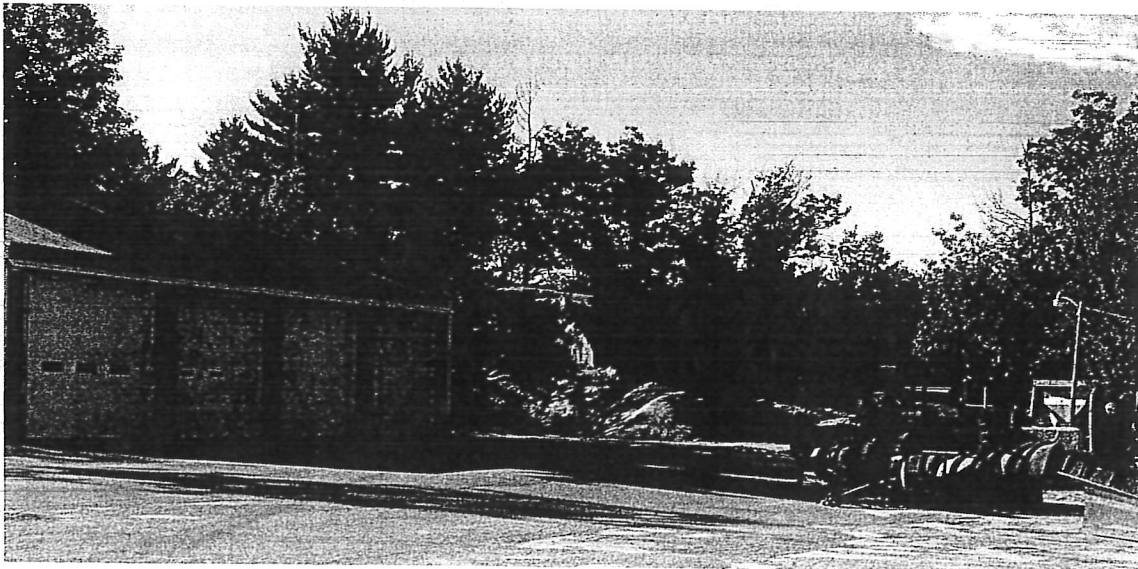
C. Highway

The 2005 Town Meeting Survey reported heavy weighting toward Good/Fair for road condition.

In 1981, the Town Highway Department was responsible for 16.52 miles of Class V road and 1.85 miles of Class VI road. In addition, there are 3.97 miles of Class II road, for a total of 22.34 miles of road in the Town of Middleton.

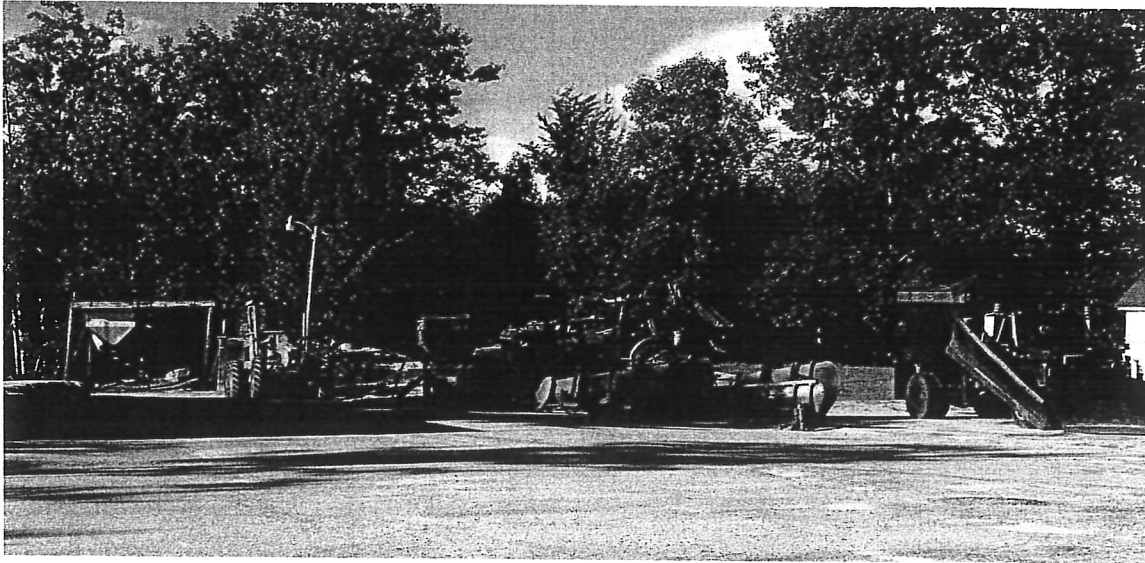
With recent growth, that amount has increased to _____. Calls for service have increased dramatically and weather related events have fluctuated wildly from year to year making budgeting difficult, if not impossible, resulting from heavy floods, excessive snow, and increased traffic on roadways.

Highway		2003	2004	2005	2006
Gravel			2000	3000	
Screened Sand			3500	3500	
Projects					
Reconstruction	1600 culverts	600' culvert	Silver St	300'	
		Drew Estates	Railings	24 roads	
Shim & Top Coat	4 Miles	3 miles	Ridge Rd		
	Ridge Road	Tufts	Pinkham Rd		
		New Portsmouth			
		Upper Kings Highway			



A road management plan would help in anticipating expenditures for paving, repaving, and drainage programs. Increasingly frequent weather events will result in more expenditures, staff and equipment.

The highway department has also been called upon for diverse projects such as park maintenance. These impacts, while important to the community, should be reflected in an increased budget for the department.



D. School Districts

The notion of developing, at minimum, an elementary school, has been one of hot debate for Middleton residents.

As is commonly known, Middleton is presently under an "AREA" agreement with Farmington School District and has no facilities of its own. The School Study Committee, in response to what many feel is an inferior school system; (Farmington) produced recommendations for withdrawal from the Farmington School District and construction of a Middleton Elementary School (1982). Having ones own elementary school, it was felt, would provide for greater influence and control over elementary curriculum development and a better education for the town's children in general.

The town at the Annual School District meeting for 1982 turned down such proposals. This does not preclude the need for planning and eventual construction of an elementary school. Planning and financial arrangements now would avoid severe financial impact in the future. Actions have already been taken to secure sufficient land for eventual school construction. (See below).

E. Recreation Facilities

The 2005 Town Meeting Survey reported heavy weighting toward Good/Fair for park / town hall facilities.

With the exception of the town beach, a basketball court, and use of the Town Hall for recreation activities, Middleton has no public recreation facilities. This fact was noted in the questionnaire, which found that recreational facilities ranked number one in unsatisfactory town services.

The Board of Selectmen, in conjunction with the School Department, has taken actions to alleviate this problem. The town has agreed to purchase the Leary property (across from the Town Hall), a total of 67+ acres. The property is being purchased in speculation of future school development. The School Department has agreed to give a portion of that land to the town to develop a ball field. The town should investigate the potential of private foundation support and/or donations, in lieu of tax dollars for park development (e.g. New Hampshire Charitable Fund).

F. Sanitary Landfill

The Town currently contracts for sanitation removal and pays tonnage fees to Waste Management. The only way to track the impact and change in service is by showing the costs, which also captures the increased costs. The following table shows these costs:

Sanitation	2003	2004	2005	2006
Tonnage	44596	66563	64810	
Waste Mgt/Turnkey	57613	46836	56980	
Total	102209	113399	121790	135697

Chapter 6: Land Use

This section of the Master Plan is one of two required sections, pursuant to RSA 674:2(II)(b).

Existing Land Use:

The previous Master Plan was based upon a single land use map. This version, adds some additional maps to more adequately display the characteristics of the Town's existing land use and its driving factors. Overall the Town continues to develop in a spread pattern of generally rural development. This has been driven in part by the need for adequate land for water and septic and a perception that larger lots will maintain a rural atmosphere. This assumption, as noted in the 1981 plan, breaks down once the whole town is developed in 2 acre increments. The densest residential settlement continues to be along the shores of Sunrise Lake. The impacts of this development on the lake system are well documented concerns throughout the rest of this plan. With the exception of Sunrise Lake development, residential land use is restricted to most major town roads.

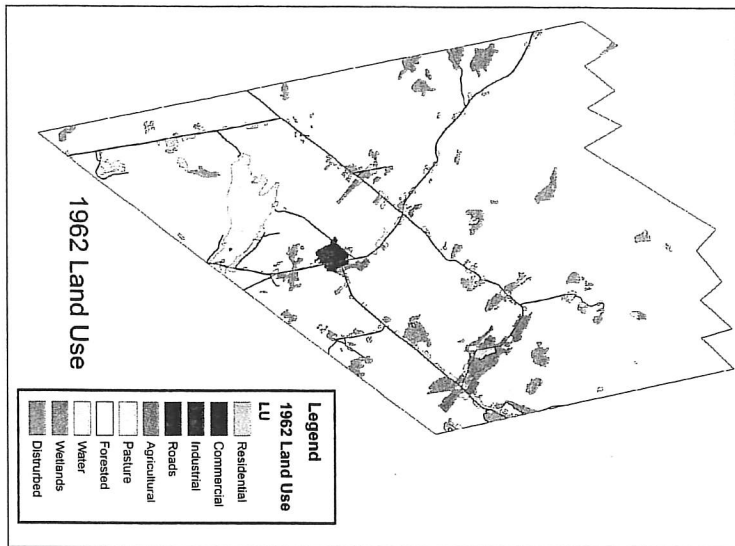
New major developments have occurred in no apparent pattern and have brought about a new awareness of the current path for our land use given the existing zoning. A desire to implement other forms of development, ones that do not require border-to-border land use to create lots have led to the use of conservation development techniques. While these developments balance the parcel, it has been difficult to implement regulatory schemes that focus development in traditional cores.

The town has expressed an explicit desire to maintain its rural character, natural resources, and promote its Town Center. The recommendations, tools and visual representation of these desires can be found in the Future Land Use Chapter.

Commercial operations are scattered throughout the town. The only major commercial/industrial development can be found at the corner of Kings Highway and Hollow Road. These categories do not represent a significant amount of land.

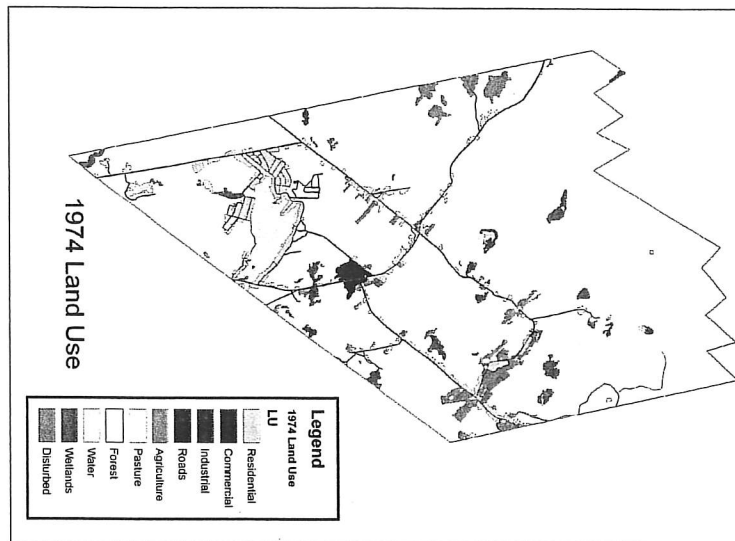
The following set of maps show the change in land use as extrapolated from aerial photos. The trends identified can be summarized as follows:

- Most development has occurred along existing roads.
- Newer roads serve less people per acre.
- New developments fragment open spaces.
- The northern, mountainous area has remained undeveloped (and is now significantly conserved).
- Development has been predominately residential.
- The four-corners area has remained a significant opportunity for community focus.



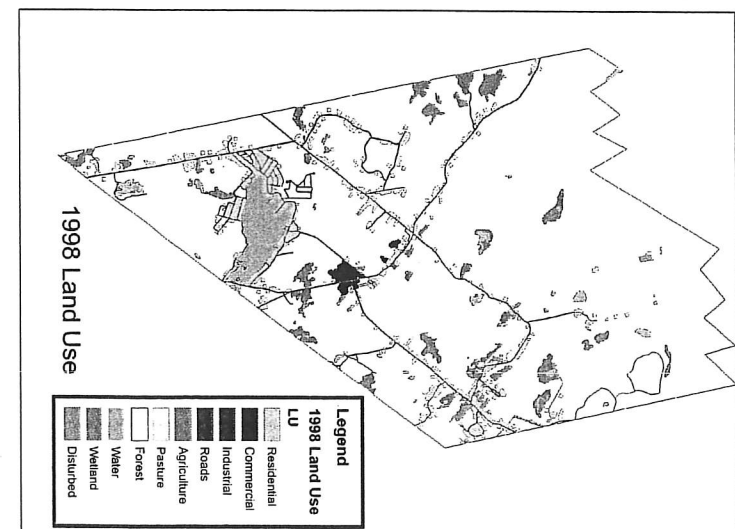
1962 – Population:

350 Persons



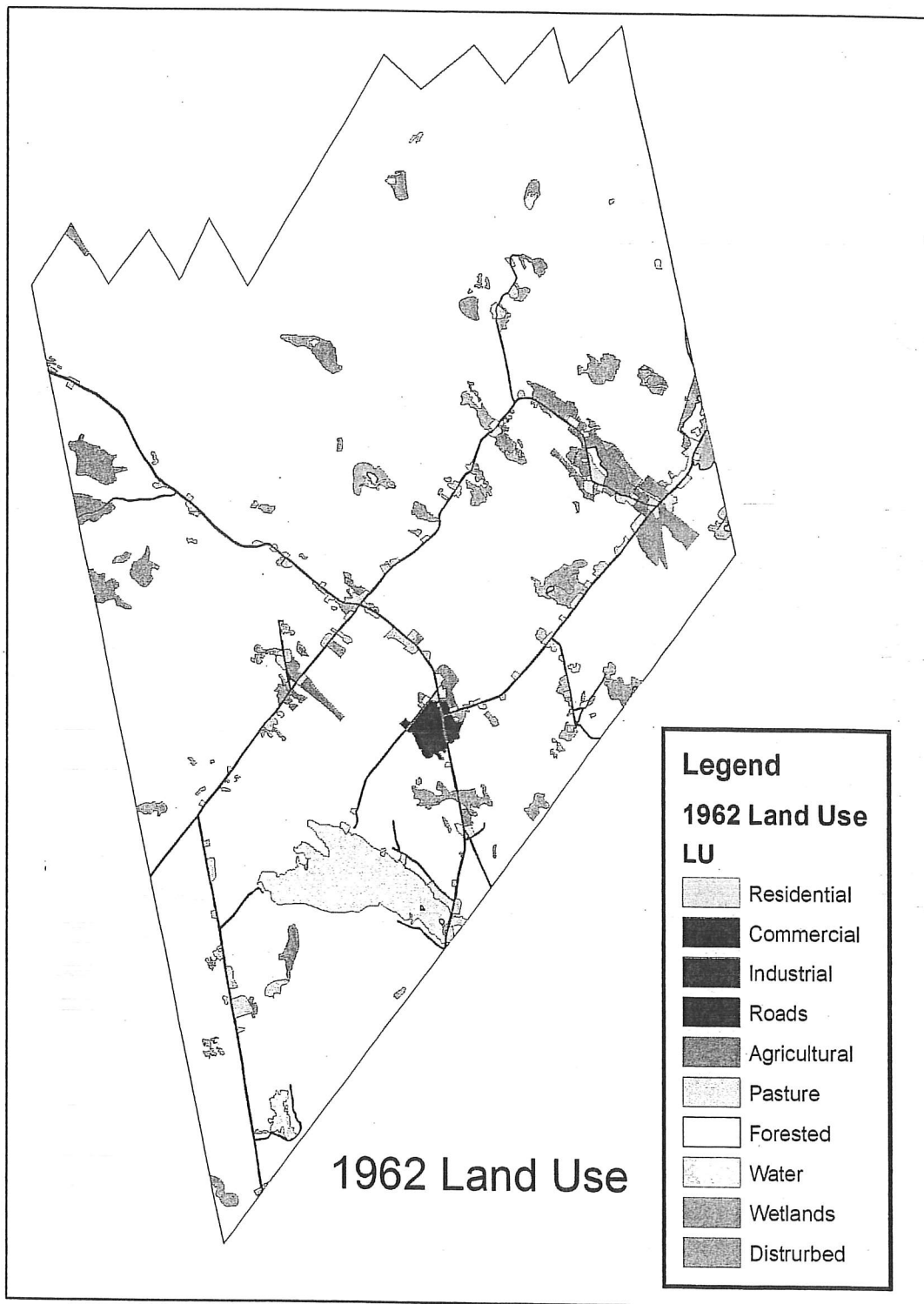
1974 – Population:

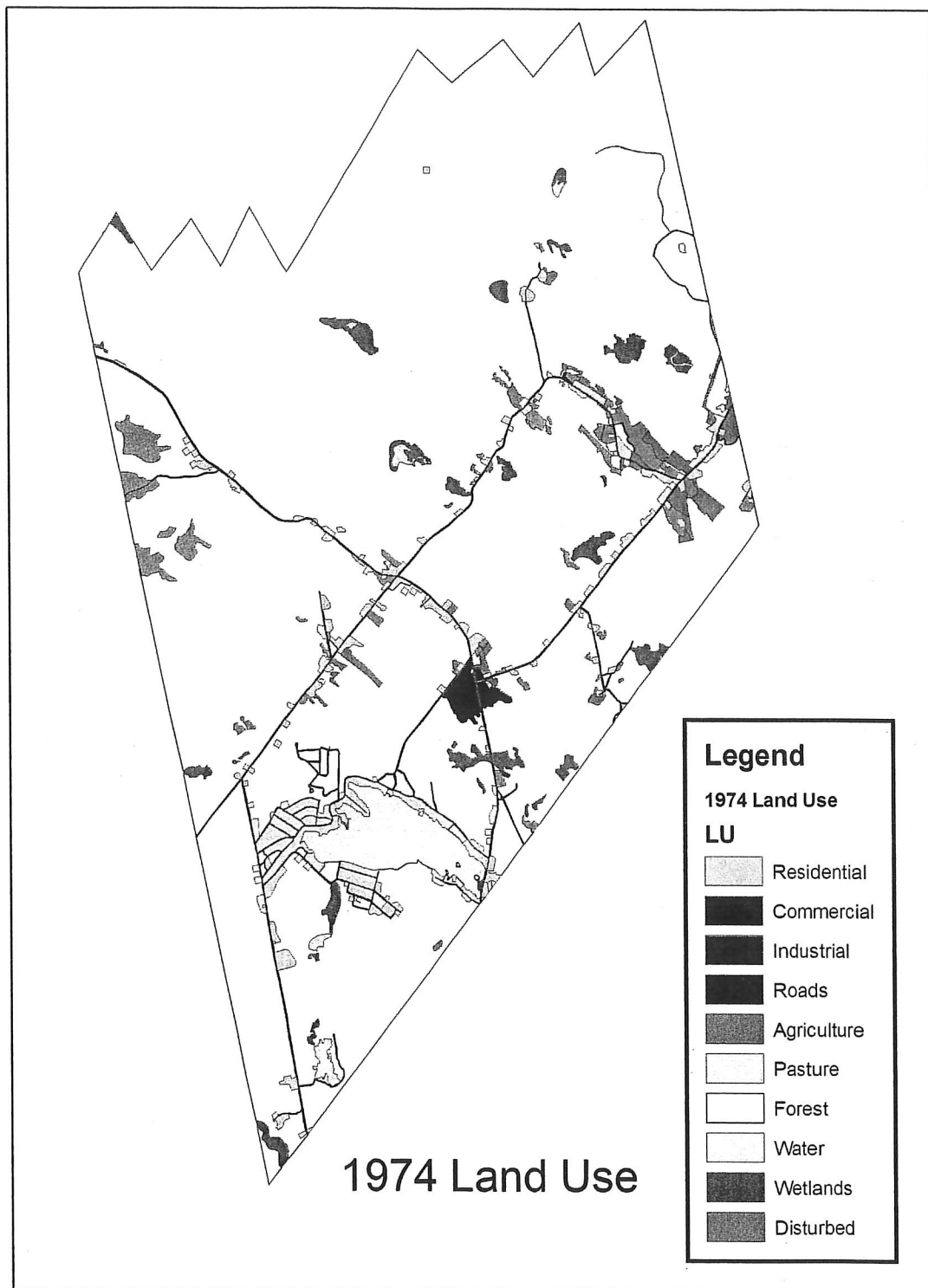
550 Persons

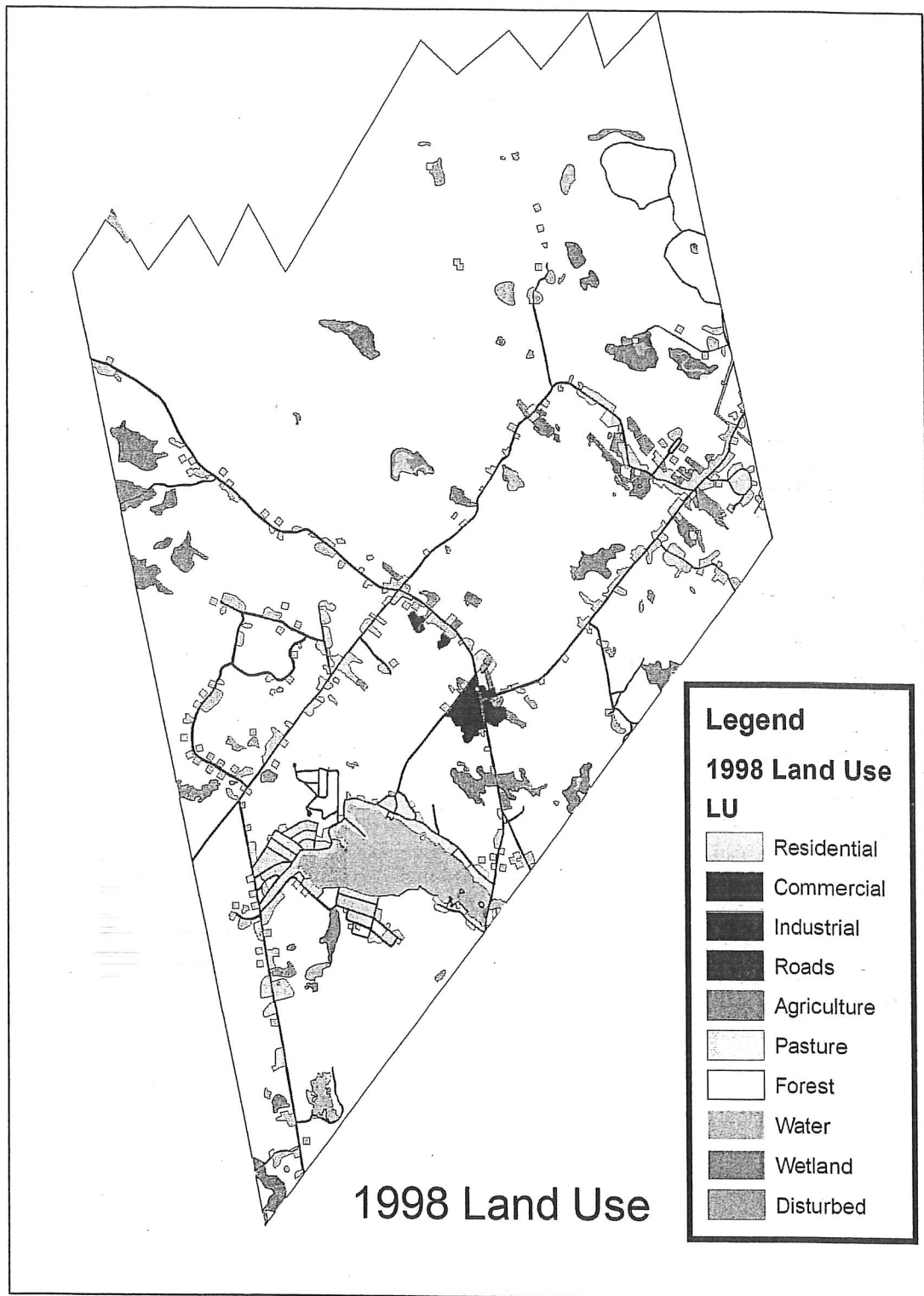


1998 – Population:

1200 Persons







Middleton's population growth is provided in Chapter 2 and indicates a steady increase for the last several decades. When combined with an understanding of the factors that have been driving this growth and the predicted outlook for New Hampshire's economic and demographic future, it is apparent that this growth will continue.

As such, our current picture of land use is important in understanding where we have been, how we got where we are, and what we need to do to prepare for our future.

Future Land Use

This section of the Master Plan provides Middleton's vision for future growth. Considering the outside factors driving growth for Middleton, the Planning Board has developed a proactive statement about specific areas where growth is appropriate, where it is not, and criteria that can be used in making case-by-case determinations of how land use should be guided despite technical compliance with our regulations and ordinances. In other words, general development goals and patterns may in some cases be modified based upon specific case-by-case analyses of natural resources, economic issues, and policy concerns.

General Goals

Future land use must be implemented in conjunction with these three major goals:

1. Balance Resource Protection and Property Interests

This Master Plan provides significant information and research on Middleton's natural resource inventory. In order to assure that the Town grows and develops in a economically balanced fashion that includes environmental sustainability, the Planning Board may at times find that flexibility in design review of applications will achieve higher goals. This may require specific regulations to be waived in order to achieve greater overall benefits in light of this plan's objectives.

- For example, setbacks from drainage courses that are defined as wetlands may be less important than setbacks to major wetland resources, such as The Bly. In a development, the setbacks to the Bly may be increased in favor of a reduction to the man made drainage system.

2. Provide Future Resources for an Active Landscape

Middleton has a history of working landscapes. Agriculture, forestry and outdoor recreation should be considered a part of our community's future. Land use and conservation efforts should work hand in hand to create the fundamental framework for large parcels of open spaces that are conserved with multiple uses contemplated.

- For example, consider a large residential development that impacts an unfragmented forested region. This development may work as an open space design where a portion of the open space is utilized as an active landscape for managed forestry and agricultural use. These uses can be managed in such a context so that they are economically sustainable as well as a part of a fabric that forms Middleton's active landscape. In these scenarios, the Planning Board should consider sustainable active use that balances economic and environmental concerns as part of future "open space".

3. Remain Cognizant of Specific Nature of Growth Impacts for Middleton

The following list provides a location and resource based set of statements regarding the Board's policy on land protection.

Specific Protection Locations

Although every parcel will have specific locations worthy of concern, these areas are the major resources in the Town that require specific care when considering development impacts. Some of the locations are named areas while others refer to specific types of resources that are meaningful attributes to the Middleton landscape.

Sunrise Lake Area

- An obvious resource of tremendous beauty, use, and importance, this water body has experienced significant development-related impacts. The overall development, redevelopment, and regulations that affect this area should involve and more aggressive approach to insuring the long-term protection and multiple use of this resource.
- Garland Brook is the main feeder stream and an important wildlife corridor with extensive wetland resources as documented by the Conservation Commission.
- The Judge Forte Property is one of the last undeveloped large parcels on Sunrise Lake and provides scenic views from King's Highway and the Lake and serves as an important wildlife corridor.
- Tanglewood Subdivision is an unbuilt subdivision that lies on land that drains into the lake and has a variety of habitat and established trails. Consideration should be given to its protection and conservation.
- Burnham Pond – to the east of the lake – provides additional educational opportunities, wildlife habitat and recreational opportunities.
- Sunrise Lake Islands – provide critical habitat for loons and are recreational stops which should be protected from all activity during certain seasons.

Specific Development Responses:

- Conversion of seasonal housing to permanent housing must only be completed where upgrades to septic systems are completed with advances in technology.
- Education and enforcement resources should be utilized in protection the lake from failed septic systems, increased impervious surfaces, and other surface drainage impacts.
- Upgrades and expansion within the immediate watershed should be permitted in conjunction with overall reductions of impacts. Such an effort may be implemented in a manner that allows for more building on site provided an overall reduction in impervious surfaces can be achieved.

- Structures and landscaping within the shoreland area should be carefully reviewed and inspected to insure that the construction reduces impacts to the lake and introduces native species to the ecosystem. Permit fees should be increased to insure compliance can be inspected and assured.

Southeastern Aquifer on Moose Brook

This resource is the major subsurface water resource for the Town of Middleton and the region. The location is also a documented wildlife corridor. The future use of this resource requires its protection from pollution and extraction. Development may occur within the aquifer's boundary, but must be reviewed to assure that impacts are mitigated and carefully contained and treated on site.

Specific Development Responses:

- All development in these areas must be undertaken and reviewed by the Board to insure that the quality and quantity of the aquifer are preserved.
- Balanced development should continue.
- The fact that Middleton does not have a water system now, does preclude future deployment, especially in light of the congested development around Sunrise Lake, which has both an environmental justification and population densities to support such a system.

Mouse Mountain Reservation

Home to significant land area, views, wildlife, unique geologic and natural resources, this area also serves as the headwaters for the Branch River, Jones Brook, and Horn Brook.

Specific Development Responses:

- This is one of the most significant conservation efforts in the region and any development within its area should be encouraged to reflect its potential to contribute and on the other hand mitigate impacts to this area.

Jones Brook

This Brook feeds one of the existing public drinking water supplies and has a singular boulder formation near Route 153.

Blueberry Mountain

- West of King's Highway, this location is unique for Middleton and supports extensive wildlife resources.

Currier Pond and Fowler's Pond

These ponds, in conjunction with the drainage from Sunrise Lake, feed the Cocheco River – a critical resource for a significant portion of the state - and includes wildlife habitat and wetlands.

Steep Slopes

Specific Development Responses:

- Steep slope development should be avoided to minimize erosion, visual obtrusiveness, and protect natural resources unique to these environments.
- Undue municipal expense can result from roadways and infrastructure built in these locations and emergency response times can be affected.
- These issues should be considered during Planning Board review.

Farmlands

Both existing and older farms continue to be an important part of Middleton's heritage. The Pleasant Valley Road area, Ridge Road Farms, and the existing Mooney Farm, Comaeu Farm, and Alpaca Farm are all worthy of note and support from the Board.

Unfragmented Lands

Specific Development Responses:

- The Board should continue to encourage open space conservation design developments in areas where there are large areas of unfragmented lands.

Wetland Resources

Wetlands in the Town of Middleton provide a host of important functions for citizens, the quality of life found here, and the wildlife that inhabit our community. These wetlands are an integral part of the community's character and provide natural services that help the local ecosystem thrive and remain vibrant. In an effort to protect these important and highly sensitive areas of town, we must acquire an understanding of their highest value to the community and how to approach these portions of land in terms of future land use development.

The community is able to determine the functional value of the wetlands located within Middleton with the help and use of the New Hampshire Estuaries Project's 2002 report

titled *"Use of GIS Data to Assist the Selection and Identification of Significant Wetlands in the Moose Mountain Regional Greenways: Middleton Appendices,"* and a 1995 University of New Hampshire report titled *"Wetland Evaluation for Selected Sites Using the Method for the Comparative Evaluation of Nontidal Wetlands in New Hampshire for Middleton, New Hampshire."* Each wetland class is evaluated in terms of its functional value. The functional value is applied to fourteen separate, yet connected value groups for the wetlands located within Middleton (i.e. the ecological integrity of the wetland, the functional value of the wetland in terms of wildlife habitat, etc.). The values are placed into an index, known as the Functional Value Index, or FVI. The highest and second highest values present for each wetland have been described below and provide insight into the most significant functional values of the wetland classes located in Middleton.

Wetlands 1,2,5,7, and 8 are lumped into the northern conservation section of the Town and any new development and impacts associated with these wetland locations are minimum. ...

Wetland 3 – Located in the central portion of Town, Wetland 3 provides a high FVI in regards to finfish habitat – rivers and streams, flood control potential, shoreline anchoring, and is noteworthy to the community because of the values found there.

Wetland 4 – Located along the border of Milton, Wetland 4 encompasses a high FVI in regard to shoreline anchoring and is noteworthy to the community because of the values found there.

Wetland 6 – Located south of Wetland 4 along the Milton border, Wetland 6 encompasses a high FVI in regards to ecological integrity, shoreline anchoring, and is noteworthy to the community because of the values found there.

Wetland 9 – Located in the central/western portion of Tow, Wetland 9 encompasses a high FVI in regards to finfish habitat – rivers and streams, shoreline anchoring, and is noteworthy to the community because of the values found there.

Wetland 10 – Located northeast of Sunrise Lake, Wetland 10 encompasses a high FVI in regards to groundwater potential, shoreline anchoring, and is noteworthy to the community because of the values found there. Wetland 10 also provides the second highest FVI for finfish habitat – rivers and streams.

Wetland 11 – Located along the southern tip of Middleton, Wetland 11 encompasses the highest FVI in regards to flood control potential, shoreline anchoring, and is noteworthy to the community because of the values found there.

Wetland 12 – Located along the southwestern portion of Sunrise Lake, Wetland 12 encompasses a high FVI in regards to the locations wetland wildlife habitat, flood control potential, shoreline anchoring, urban wetland wildlife habitat, urban educational opportunity, urban visual/aesthetics quality, urban based water recreation, and is noteworthy to the community because of the values found there. Wetland 12 also provides the second highest FVI for water-based recreation and sediment trapping.

Wetland 13 – Located in the eastern portion of the Town running along the border of Milton, Wetland 13 encompasses a high FVI in regards to the locations educational potential, water-based recreation, sediment trapping, nutrient attenuation, shoreline anchoring, and noteworthiness to the community because of the values found there. The wetlands area also holds secondary FVI regarding wetlands wildlife habitat, visual/aesthetic quality, and the areas quality as a historical site.

Wetland 14 – Located in the northwestern portion of the Town, Wetland 14 encompasses a high FVI in regards to finfish habitat – rivers and streams, visual and aesthetic quality, flood control potential, sediment trapping, shoreline anchoring, and is noteworthy to the community because of the values found there. The location also provides a second highest FVI concerning nutrient attenuation.

Wetland 15 – Located northeast of Wetland 3, Wetland 15 encompasses a high FVI in regards to finfish habitat – rivers and streams and is noteworthy to the community because of the values found there.

Wetland 16 – Located at the southeastern tip of Sunrise Lake along the border of Milton, Wetland 16 encompasses a high FVI in regards to finfish habitat – ponds and lakes, flood control potential, and is noteworthy to the community because of the values found there. The wetland also holds the second highest FVI concerning shoreline anchoring.

Chapter 7 Implementation Strategy:

Environmental Characteristics Zoning Overlays:

- Ridgeline zoning and clearing restrictions.
- Lower density for ridgelines and sloped regions.
- Increased setbacks along wetlands and waterbodies.

Development patterns:

Consider existing Open Space development ordinance:

- May be mandated in certain areas of town with tight restrictions on developable locations.
- Consider in conjunction with larger lot conventional zoning if incentive approach is taken.
-

Development along existing roadways with conserved rear lands.

Pros:

- Can operate to maintain unfragmented backlands.
- Provides lower cost development – promoting less development.

Cons:

- Can be considered visual obtrusive.
- Enhances existing fragmentation.

Encourage appropriate Town Center Zone

- Increase density but require improvements that promote the downtown core.

Sidewalks.

Underground utilities.

- Allow for increased mixing of uses in core downtown.
- Consider maximum lot size and maximum setbacks.
- Consider historic district in Middleton Four Corners town center.

Non-residential development

- Consider new business districts.
- Allow for greater flexibility for home occupations.

Economic Goals:

- Consider Impact Fee Ordinance
- Consider tighter regulations on exactions through specified deficiency locations for existing services.

MIDDLETON MASTER PLAN

Prepared by
Strafford Regional Planning Commission
October, 1982

APPROVED AFTER PUBLIC HEARING
Sept 22, 1983
Edgar Kendall
CHAIRMAN OF PLANNING BOARD

MIDDLETON MASTER PLAN

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APPENDICIES

Appendix A: Middleton Attitude Survey

Appendix B: Middleton Condominium Development Proposal

Appendix C: Proposed Subdivision Regulations for the Town of Middleton

CHAPTER 1: INTRODUCTION and BACKGROUND

A. Purpose and Goals

Middleton is growing. The purpose of the Town Plan is to provide for this growth in a way that protects Middleton's rural, small-town character and values, those very things that have brought us together here to live.

The goals that the Town Plan tries to achieve are:

1. To protect Middleton's rural, small-town character, while allowing compatible residential and commercial development.
2. To provide for balanced, orderly town development, consistent with the ability of Middleton's land base to sustain development and the town's ability to provide necessary services for such development.
3. To insure higher standards for public health, safety and welfare, particularly in the areas of fire and police protection, road maintenance and education.
4. To protect and preserve Middleton's important natural resources, particularly its wetlands and other unique or fragile areas.
5. To encourage social cooperation between Middleton's year-round and seasonal residents.

B. Plan Objectives

The following objectives of the Plan came from an analysis of the Middleton Town Survey. The survey was conducted in the fall of 1980, and is discussed later in the Plan. The objectives are the specific ways in which the Town Plan tries to achieve progress towards its general goals. The objectives are:

1. To more adequately protect Sunrise Lake from threatening overdevelopment and the consequences of expensive water pollution problems, by more strictly regulating development adjacent to its shores.
2. To investigate and improve upon Middleton's present educational system.
3. To provide some type of recreational facility for the children of Middleton.
4. To provide increased fire protection for the Town.
5. To investigate the need for improving Middleton's present form of town government.
6. To plan for the systematic maintenance and improvement of Middleton's road system.
7. To insure adequate, year-round police protection for the community.
8. To identify areas in which to encourage business and commercial growth in the community, particularly small-scale ~~recreationally-oriented~~ businesses, perhaps in areas near Town Hall or on King's Highway.

9. To design new ordinances to specifically protect Middleton's wetland areas.
10. To consider a capital improvement program for the Town, so that the Town may be more adequately prepared to deal with new growth.
11. To investigate regional alternatives to solid waste disposal in accordance with Chapter 149-M, New Hampshire Revised Statutes Annotated.
12. To more strictly regulate development on the many steep slopes of Middleton, to prevent soil erosion.
13. To provide a permit system regulating commercial sand and gravel extraction in Middleton, as required by New Hampshire State Law, RSA 155E.

C. Regional Setting

Middleton separates the urbanized, industrial areas of southern and central Strafford County and New Hampshire's major tourist attraction, the Lakes Region. The town lies between the two major transportation routes connecting the two regions, Routes 11 and 16. Most of Middleton is accessible from one or both of these highways. There are no numbered state highways running through Middleton. In addition, RTA 153 passes the South Eastern Corner.

Middleton is a member of the Strafford Regional Planning Commission, which is now composed of eight active communities and the Strafford County Commissioners.

Regional commuting patterns suggest that Middleton is heavily dependent on the regional economy. While only 24.4 percent of Middleton workers find employment in Middleton, as many as 53 percent find employment in New Hampshire's industrial south-east (1978 BiCounty Census). This dependency should be monitored. If the area suffers from economic depression or layoffs, Middleton will feel this impact directly.

D. Historical Summary of Middleton

It is impossible to relate all of Middleton's rich history in a few short paragraphs. Yet no town plan would be complete without some summary of Middleton's heritage. A plan looks to the future, but must appreciate and respect the past. It should attempt to preserve what best represents the local town "character and flavor" while accommodating expected new growth.

The following summary is indebted to The History of Middleton, New Hampshire, from the First Settlement to the Present Time, by Florence E. Casavant (1976).

In 1769 Old Governors Road (Kings Highway) was built through what is now Middleton, so that Governor Wentworth might travel easier to his summer home in Wolfeboro. That same year, 32 settlers from Lee, Rochester, Somersworth and elsewhere came to settle the area. The Township was granted the following year on March 21, and later incorporated by the State Legislature on March 4, 1778.

The town of Middleton was a bit larger back then than it is today. In 1785 settlers from the northern half of town, known as the "Second Division", petitioned the State Legislature to secede from Middleton and become a separate town. The problem was the high ridge of mountains (the Moose Mountains) which imposed a physical hardship on settlers in the Northern Division, who had to cross them to attend public worship and town meetings in the Southern Division. The succession movement did not succeed then, but in 1794 the matter was again brought before the State. Middleton was divided by an Act of the Legislature on December 30, 1794, and the Second Division became the separate Town of Brookfield.

Between 1876-1887 a wagon road was built between Wolfeboro and Rochester, passing through Farmington, Middleton and New Durham. Because of the through travel Middleton Four Corners became a thriving hamlet. A new meeting house was built in 1795, and moved a half-mile to its present location in 1812. The Town then boasted several stores, a church, two taverns, a hotel, and a waiting station for the horses traveling through. As early as 1830, a daily stagecoach run was established between Dover and Sandwich, stopping in Middleton Four Corners to refresh both horses and passengers.

Middleton also once claimed its own silver mine, up on Ridge Road. It was mined sometime around 1850, but was closed down when, after one eight-hour period, only a dollar's worth of silver was mined.

In 1861, Middleton's only lake was created. First known as Dump Pond, it was created by the Great Northern Lumber Company as a holding pond for mills in Rochester and Conic. The pond served to regulate water flow down-river late in summer to power the mills. When the mills went out of business, the Sunrise Lake Lands Association paid the back taxes and owned the water rights to Sunrise Lake, as it is known. It is now owned by the Sunrise Village District. The Lake has been a major attraction and factor contributing to Middleton's recent and precipitous growth. Several new residential developments, both seasonal and permanent, have been created around its shores - Sunrise Lake Lands, Hampshire Shores, Sunrise Estates, Auclair Land, and Fox Road.

CHAPTER 2: POPULATION and HOUSING - GROWTH TRENDS

This chapter describes population growth in Middleton. An analysis of population and housing characteristics is included. These statistics should help guide town decisions about land development and public services in the future.

A. Population

Population growth creates new needs for schools, housing and other public and private facilities. Understanding trends in population growth is therefore important when planning municipal facilities. Having some idea of what to expect, and when to expect it, can make decisions about the need for future town services a little easier for town officials and residents.

Figure 2-1 charts Middleton's population growth since the turn of the century. Table 2-1 looks back 20 years and ahead 20 years for Middleton and the towns surrounding it. It shows Middleton's present population is about six percent of the area population. In fact, Middleton's 1980 population of 734 is less than one percent of the population of Strafford County, of which it is part. Only Brookfield, Middleton's northern neighbor, is smaller in terms of population.

The table shows that Middleton's share of area population has steadily increased over the last 20 years, from 5.1 percent in 1960 to 6.3 percent in 1980. And it is projected to increase to just over seven percent by the year 2000. New Durham received the largest increase in share of area growth between 1960-1980, whereas Farmington, which is growing slower than its rural neighbors, is becoming a smaller percentage of the area's population.

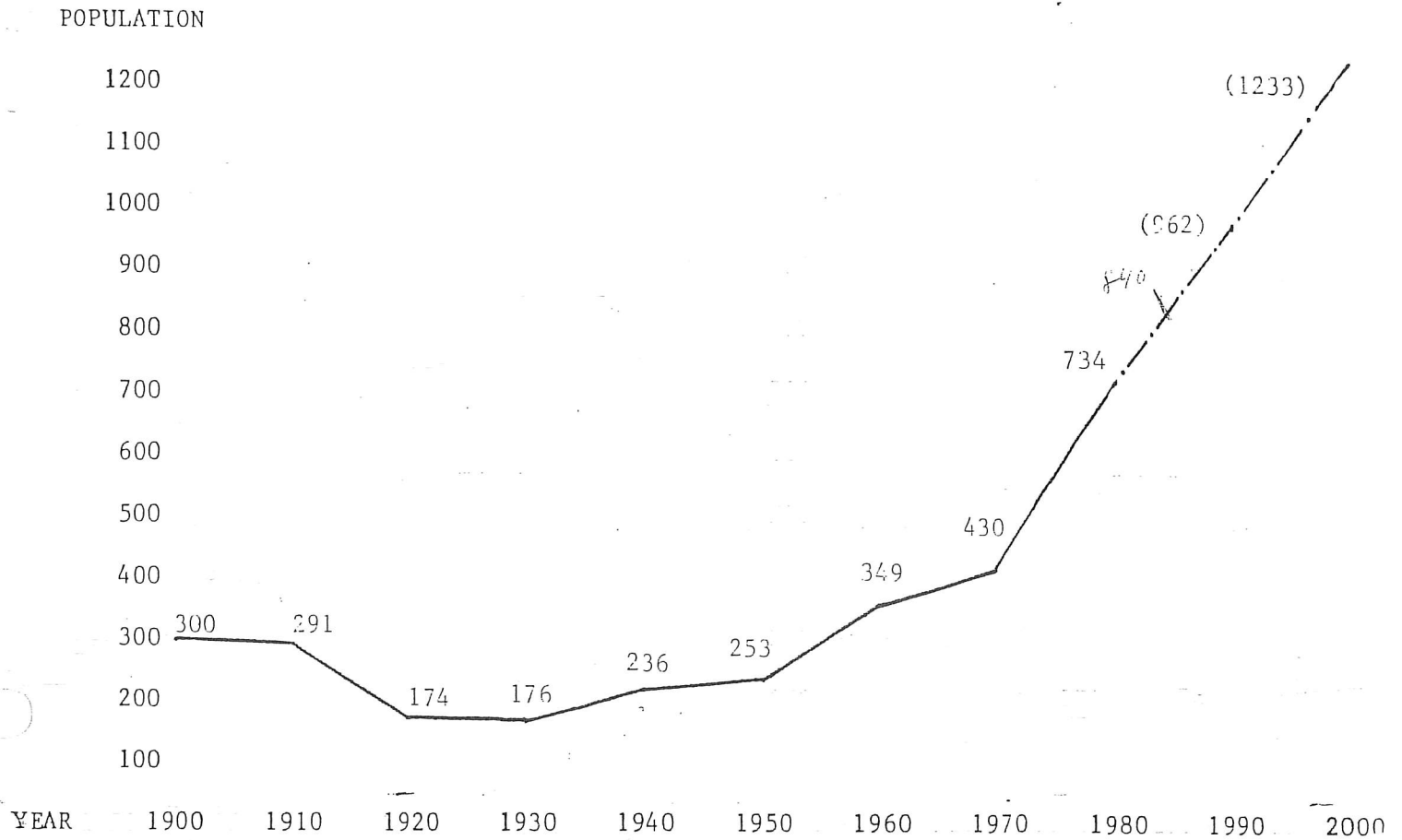
Table ²3-1 contains population projections for the years 1990 and 2000. These projections come from a computer model developed for the New Hampshire Office of State Planning, that models the growth patterns of different parts of New Hampshire's population and economy. For example, two types of migration are recognized: employment-related and retirement-related. The model is therefore sensitive to variations in the growth of these different segments of the population.

The population projections indicate that Middleton is expected to pass the 1000 population benchmark sometime between 1990 and 2000.

Table 2-2 shows the past and projected rates of growth for Middleton and its surrounding communities for each 10 year-period between 1960-2000. Although Middleton grew by a whopping 71 percent during the last 10 years, Brookfield grew by 94 percent and New Durham by 103 percent. For the next 20 years, Middleton's expected rate of growth is larger than every other area community, but neither its past or projected growth rates are out-of-line with what its neighboring communities have experienced or will experience.

Still, Middleton has more than doubled its population in the last 20 years. And it will increase by half again by the end of the century. Such increases in rural communities are not entirely unusual, since they have small population bases to begin with. But such growth does have significant impacts. The erection of two or three new homes in a formerly forested and outlying area of town can give rural residents the feeling of becoming crowded and "hemmed" in, more than the construction of a 200-

Figure 2-1 MIDDLETON POPULATION GROWTH
1900 - 1980 and BEYOND



Sources: U.S. Bureau of The Census
Office of State Planning, New Hampshire Population Projections for
Counties and Municipalities, April, 1981

TABLE 2-1 MIDDLETON AREA POPULATION
PAST and PROJECTED, 1960-2000

	<u>1960</u>		<u>1970</u>		<u>1980</u>		<u>1990</u>		<u>2000</u>	
	<u>NO.</u>	<u>%</u>	<u>NO.</u>	<u>%</u>	<u>NO.</u>	<u>%</u>	<u>NO.</u>	<u>%</u>	<u>NO.</u>	<u>%</u>
Brookfield	145	2.1	198	2.5	385	3.3	499 560	3.5	590 730	3.4
Farmington	3287	47.7	3588	44.4	4630	39.9	5440 5674	39.4	6150 6829	39.2
MIDDLETON	349	4.1	430	5.3	734	6.3	1050 967	6.7	1240 1233	7.1
Milton	1418	20.6	1859	23.0	2438	21.0	2870 2822	19.6	3330 3280	18.8
New Durham	474	6.9	583	7.2	1183	10.2	1850 1550	10.8	2480 1985	11.4
Wakefield	1223	17.7	1420	17.6	2237	19.3	2880 2901	20.1	3480 3484	20.0
TOTAL	6896	100.0	8078	100.0	11,608	100.0	14,408	100.0	17,410	100.0

Sources: U.S. Bureau of The Census,
Office of State Planning, New Hampshire Population Projection Counties and Municipalities, April, 1981.

TABLE 2-2 COMPARISON of PAST and PROJECTED
POPULATION GROWTH RATES,
MIDDLETON and ADJACENT TOWNS

Brookfield

1960-1970: +36.6%
1970-1980: +94.4%
1980-1990: +29.6%
1990-2000: +20.0%

Wakefield

1960-1970: +16.1%
1970-1980: +57.6%
1980-1990: +29.6%
1990-2000: +20.1%

New Durham

1960-1970: + 28.3%
1970-1980: +102.9%
1980-1990: + 31.0%
1990-2000: + 28.2%

MIDDLETON

1960-1970: +23.2%
1970-1980: +70.7%
1980-1990: +31.1%
1990-2000: +28.2%

Milton

1960-1970: +31.1%
1970-1980: +30.5%
1980-1990: +15.8%
1990-2000: +16.2

Farmington

1960-1970: + 9.2%
1970-1980: +29.0%
1980-1990: +22.5%
1990-2000: +20.4%

Sources: Table 2-1

unit apartment complex will to a city dweller. And even small increases in population can result in demands for new town services. These services often cost rural people more per capita than city people, because there are less people to share the costs. Middleton is beginning to feel the effects of its recent growth boom.

The age of the resident population is of particular importance when planning town services. Table 2-3 shows this data for 1960-1980.

TABLE 2-3 POPULATION TRENDS BY AGE GROUPS,
1960-1980

<u>Age Group</u>	<u>1960</u>	<u>% of 1960 Total</u>	<u>1970</u>	<u>% of 1970 Total</u>	<u>% Change 1960-70</u>	<u>1980</u>	<u>% of 1980 Total</u>	<u>% Change 1970-80</u>
Under 5	46	13.2%	36	8.4%	-21.7%	67	9.1%	+86.0 %
5 - 14	66	18.9%	94	21.9%	+42.4%	138	18.8%	+46.8 %
15 - 24	50	14.3%	52	12.1%	+7.0%	99	13.5%	+90.0 %
25 - 34	36	10.3%	42	9.8%	+16.7%	127	17.3%	+85.0 %
35 - 44	47	13.5%	40	9.3%	-14.9%	87	11.9%	+118.0 %
45 - 54	51	14.6%	61	14.2%	+19.6%	62	8.5%	+ 1.6 %
55 - 64	32	9.2%	54	12.6%	+68.8%	85	11.6%	+57.4 %
65 +	21	6.0%	51	11.9%	+14.3%	69	9.4%	+35.3 %
TOTAL	349	100.0%	430	100.2%	+23.2%	734	100.1%	+70.7 %

Two age groups have a direct impact on town services; the 0-14 age group, which require educational services; and the 24-44 year age group, which is of prime child-bearing age. In both groups, growth from 1970-1980 was significant, well above 50 percent in both cases. The growth in both groups will likely increase expenditures on public education in the near future. This growth was not offset by a large increase in the elderly population, which would have added to the town's tax base with very little associated service requirements.

Table 2-4 says a good deal about recent residents in Middleton. It shows a substantial increase in the number of college graduates and persons with high school and post-high school education.

It shows that over half of Middleton's adult population now have a high school diploma, compared to less than a third only 10 years ago. Almost 20 percent have some post-high school education, compared to only seven percent in 1970. The number of persons with a high school diploma or better has more than doubled in Middleton since 1970.

This rise in educational level is good for the community as a whole. Yet there may be some problems ahead. As educated newcomers become involved in local government politics, there may be some social dislocation of resident old-timers who have seen things run one way as long as they can remember. Such dislocation, typical now

in many growing rural towns, may generate ill-feelings for some time to come.

Table 2-5 shows family income levels. Almost 60 percent of all families in Middleton now have family incomes in excess of \$15,000 per year, compared to only 10 percent in 1970. Eighty percent have incomes greater than \$10,000 per year, compared to 32 percent in 1970. Even after adjusting for inflation, the increases are significant.

Rising incomes are consistent with the rise in educational levels. The increase reflects both rising incomes in Middleton residents and the migration of families with higher incomes. Still, income levels in Middleton remain far below regional and State averages. The mean family income in Middleton in 1980 was \$16,492; the Strafford County average was \$20,818, while the State average was \$22,137. For comparison, the average family income in Farmington was \$17,343, Milton, \$18,595, and New Durham, \$18,934.

This is further indicated by Table 2-6. Whereas Middleton's per capita income rose by some 140 percent in the last 10 years, more than the surrounding communities in Strafford County, it is still less than 80 percent of the average per capita income for New Hampshire.

TABLE 2-4 YEARS OF SCHOOL COMPLETED FOR
PERSONS 25 YEARS and OLDER, 1970-1980

<u>Years Completed</u>	<u>Percent,</u> <u>1970</u>	<u>Percent,</u> <u>1980</u>	<u>% Change</u> <u>1970-80</u>
Elementary (0-8 Years)	38.5	24.5	-14.0
High School			
1-3 Years	29.9	23.6	- 6.3
4 Years	24.3	32.3	+ 8.0
College			
1-3 Years	7.2	11.6	+ 4.4
4 Years or More	<u>0.0</u>	<u>8.0</u>	<u>+ 8.0</u>
TOTAL	100.0	100.0	0.0

Sources: 1970 and 1980 Federal Census

TABLE 2-5 FAMILY INCOME LEVELS, 1970-1980

<u>Income Levels</u>	<u>1970</u>	<u>% of Total</u>	<u>1980</u>	<u>% of Total</u>
Under \$5,000	46	37.1	11	5.6
5,000-9,999	38	30.6	31	15.7
10,000-14,999	28	22.6	39	19.8
15,000-24,999	12	9.7	94	47.7
25,000-49,999	0	0.0	20	10.2
50,000 or more	<u>0</u>	<u>0.0</u>	<u>2</u>	<u>1.0</u>
SAMPLE SIZE	124	100.0	197	100.0

Sources: 1970 and 1980 Federal Census

TABLE 2-6 PER CAPITA INCOME

	<u>1960</u>	<u>% of State</u>	<u>1979</u>	<u>% of State</u>	<u>% Change 1969-79</u>
Farmington	2440	61.7	5321	75.9	118.1
MIDDLETON	<u>2273</u>	57.4	5486	73.2	141.4
Milton	2485	62.8	5648	80.5	127.3
New Durham	2895	73.2	6087	86.8	110.3
<hr/>					
Strafford County	2810	71.0	6347	90.5	125.9
New Hampshire	3957	100.0	7013	100.0	77.2

Sources: 1970 and 1980 Federal Census

The above statistics indicate that Middleton has seen a shift in its population toward an increasing number of young families. Concurrently, the Town has seen a rise in both income and educational levels. While Middleton still trails other similar communities in such levels, it is anticipated that the trend will continue, provided land values remain relatively low and availability high.

B. Housing

In 1980, there were 293 year-round homes in Middleton, about 58 percent of the total housing stock. In 1970, year-round homes made up 40 percent of all houses in town. In the 10 years between 1970 and 1980, the number of year-round homes more than doubled. This increase is associated with the migration of new families to town, as well as the conversion of seasonal homes to year-round homes. The total addition to the housing stock between 1970 and 1980 is 162 units, an increase of almost 50 percent. The average persons-per unit has decreased from 3.35 to 2.95, following national trends. Only 8.4 percent of the total occupied housing units are rented, a decrease of five percent from 1970, when 13.3 percent were renter-occupied.

TABLE 2-7 COUNT OF HOUSING STOCK

	1970		1980		Change, 1970-1980	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Year-Round Housing Units	140	40.5	293	57.7	153	109.3
Seasonal Housing Units	<u>206</u>	<u>59.5</u>	<u>215</u>	<u>42.3</u>	<u>9</u>	<u>4.4</u>
Total Housing Stock	346	100.0	508	100.0	162	46.8

TABLE 2-8 YEAR-ROUND HOUSING TYPE

	1970		1980		Increase 1970-80	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Single-Family	130	93.5	252	86.0	122	79.2
Multi-Family	0	0.0	3	1.0	3	1.9
Mobile Home	<u>9</u>	<u>6.5</u>	<u>38</u>	<u>13.0</u>	<u>29</u>	<u>18.8</u>
	139	100.0	293	100.0	154	110.8

Sources: Tables 2-7 and 2-8: 1970 and 1980 Federal Census.

Table 2-8 shows that Middleton is predominantly a single-family town. Only one percent of all year-round homes are multi-family; 13 percent are mobile homes. This compares to 8.2 percent in Strafford County, although mobile homes make up 12.4 percent of Farmington, 19.8 percent of Milton, and 9.7 percent of New Durham. Thus, Middleton is not entirely out-of-line with its neighboring communities. Mobile homes add to the diversity of the housing stock and provide low income housing. However, as currently assessed, they add little to the total assessed valuation. If town services are required,

the town suffers a net revenue loss. It should be noted, however, that most mobile home owners in New Hampshire are elderly residents or young families without children. Middleton presently restricts mobile home growth to no more than 25 percent of the annual building permits issued.

Table 2-9 shows that over half the homes in Middleton are occupied by two persons or less, a very large figure for a rural community. Assuming that all 53 elderly households are in this category, there are still 74 non-elderly one or two-person households. Only 18 percent of the homes in Middleton are occupied by five or more people.

TABLE 2-9 OCCUPIED HOUSING BY NUMBER
OF PERSONS PER UNIT

<u>Household</u>	1970		1980		Change	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
1 Person	13	10.2	50	20.1	37	284.6
2 Persons	47	36.7	76	30.5	29	61.7
3 Persons	21	16.4	39	15.7	18	85.7
4 Persons	15	11.7	39	15.7	24	160.0
5 Persons	14	10.9	26	10.4	12	85.7
6+ Persons	<u>18</u>	<u>14.1</u>	<u>19</u>	<u>7.6</u>	<u>1</u>	<u>5.6</u>
	128	100.0	249	100.0	121	-

Sources: 1970 and 1980 Federal Census

CHAPTER 3: NATURAL RESOURCES

Land use patterns are often a direct result of a municipality's natural environment. Hillsides and river valleys, slope and types of soils often dictate where a community can and cannot develop. Where the properties of the natural environment were ignored, towns and property owners have had to bear the costs of unwise development.

This chapter identifies natural resource limitations that exist in Middleton. It is essentially a summary of the Middleton Natural Resources Inventory, presented to the Planning Board in May, 1981 by the Strafford Regional Planning Commission. Slope, soil, wetlands, floodplains and aquifers are described in terms of their location and potential impact on development. Specific constraints are also discussed. A summary synthesizes this information in terms of development suitability.

A. Slope

Development decisions should always consider the slope of land. Slope is simply a measure of the steepness of land. The degree of slope is directly related to the land's capability to support structures. Development on steep slopes can reduce soil stability, resulting in significant soil erosion and causing siltation in down-slope water bodies. In addition, structural instability of foundations and potential septic system failure on steep slopes can be costly to both property owners and municipalities.

Slope is expressed as a percentage, and represents rise in elevation over a specific horizontal distance. Thus a 10 percent slope would represent a rise in elevation of ten feet over a horizontal distance of 100 feet, or a rise of one foot over a distance of 10 feet. Five slope categories were mapped for Middleton, and are summarized below.

1. *0-3 percent slope* - These areas present few, if any, limitations for development. Large buildings, roads, and active recreation areas such as playing fields are suitable on these slopes. Very flat sites may pose drainage problems requiring special construction techniques. Examples include areas both north and south of Hollow Road, especially south of the intersection of Hollow Road and Kings Highway. Another, smaller area exists west of the Middleton Corners intersection.
2. *3-8 percent slope* - These areas are suitable for most land uses, including single-family housing on small and medium lots, apartment buildings and other types of multi-family housing, and most of the uses listed above. Limitations for large buildings increase at the upper extreme of this category. A vast portion of central Middleton falls into this category, including areas just on the north side of Ridge Road, east of Kings Highway running to Horn and Jones Brook. Some areas north and west of Sunrise Lake also fall into this category.
3. *8-15 percent slope* - Development costs and the potential for erosion increase significantly in this category. Suitable uses are single-family houses on large lots, and low density multi-family housing such as town-houses and garden apartments. Measures to control runoff and erosion should

be used. Further, public safety is impaired if roads are permitted at gradients of more than 10 percent for any length because ambulances, fire trucks, and other equipment cannot move at sufficient speeds to facilitate firefighting and rescue attempts. One such area runs east of the New Durham-Middleton border to the lower slopes of the Middleton Corners intersection, and north of New Durham Road to Birch Ridge. Smaller, limited areas can be found west and south of Sunrise Lake and to the south of most of the northern mountains.

4. *15-25 percent slope* - The cost of site development, and the potential for erosion, are major considerations in these areas. Adequate drainage and erosion control measures are necessary due to the amount of runoff generated on these slopes. Terraced developments, such as townhouses with multi-level entrances, are possible on these slopes when runoff is properly engineered - an expensive proposition. Such areas are prevalent south of Mount Jesse and to the north of the intersection of Ridge and New Portsmouth Road. Other limited areas are scattered throughout many of the mountain ranges.
5. *More than 25 percent slope* - Almost no development should occur on these slopes. Development costs and potential environmental damage are extreme. Shallow soils and high runoff and erosion rates pose severe limitations, so that even a slight disturbance of the vegetative cover can lead to major problems. These areas are best left in open space. This would, of course, include many of the mountain ranges found in Middleton. Of particular significance is the ridge that runs north-south to the west of Ridge Road.

B. Soils

Use of land must consider the capability of the underlying soil to support such changes in the natural environment. Soil suitability for various forms of development can vary from one soil type to another. In many cases, engineering and design can overcome specific soil limitations. However, increased costs are generally associated with soils-related problems. In addition, some engineered solutions to soil problems can have negative impacts on other areas of the environment. This is often overlooked.

Middleton's soils have developed as a result of the interaction of climate, vegetation, and erosion upon the area's geologic materials and topography. Geologic materials in Middleton consist of jumbled rocky deposits (till), sand-and-gravel deposits (stratified drift), and muck deposits (swamp and alluvium). Differences in the texture and mineral composition of these deposits led to the development of different soils on them. Water, wind, climate, vegetation, and animals have further modified the soil types. Location (hilltop, valley, plain, etc.) also contributes to differences in soil types.

Only the major soils types and associated limitations found in Middleton are discussed below. For a detailed discussion, please review the Middleton Natural Resources Inventory.

The source of the soils data is the Detailed Soils Survey of Strafford County by the U. S. Soil Conservation Service, whose accuracy is considered to be within plus or minus three acres. Therefore, on-site inspections are absolutely necessary when considering the development of any particular land parcel. For the development of town-wide land use plans or general zoning districts, however, such accuracy is more than sufficient.

Middleton's soil types were broken down into the following categories:

1. *Wet soils* - These wetland soils have severe limitations because of their high water table. They are unsuited for foundations or septic systems. Filling and developing wetlands destroys their valuable natural functions, such as floodwater retention and wildlife habitat. Such areas do have good open space and recreation potential. These soils types are located generally throughout the central and south-central portion of Town, concentrated along the Horn-Jones Brooks and the Branch River. There is a large wetland area south of the Kings Highway-Hollow Road intersection, with other wet soils scattered around Sunrise Lake. Any changes in the wetlands around the water bodies may significantly alter surface water characteristics.
2. *Seasonally wet soils* - These soils have limitations because of their seasonally high water tables. Buildings can experience wet basements and resulting cracked foundations, while seasonally submerged septic system leach fields can lead to well and groundwater pollution. Such soils are most concentrated to the east and west of Kings Highway, both north and south of Middleton Corners.
3. *Sand and gravelly soils* - These soils offer few limitations to development. However, intensive development with impervious surface (roads, parking lots, etc.) can prevent the recharge of underlying groundwater supplies. Because these soils are so permeable, water at the surface quickly infiltrates the soil. For this reason, septic tanks must be carefully constructed to prevent well and groundwater contamination. Those small sand and gravel deposits around Moose Brook should be protected as they are in the area of Middleton's only future groundwater supply potential. Other areas can be found to the south of, and between Perkins Mountain and Mount Jesse.
4. *Deep, well-drained stony (non-hardpan) soils* - These soils present few limitations for development. Stones and clay lenses may hinder foundations and septic tank construction and drainage in certain areas. The soil type is found in abundance in Middleton scattered throughout the town.
5. *Deep, well-drained stony (hardpan) soils* - These soils may present limitations for septic systems because of the impermeable hardpan layer, and the possibility of a "perched" water table above the impermeable hardpan. Groundwater pollution is possible if septic systems are not properly located and constructed. Development should be low density. Two areas of such soils have been identified in Middleton. The first is located southwest of Sunrise Lake, and if not watched, could lead to problems for the lake. The second area runs north - south along the east side of Ridge Road, adjacent to steep slopes.

6. *Shallow-to-bedrock soils* - Such soils limit development because of their shallow depth. Excavation for foundations, septic systems, or utility lines is difficult and expensive, often requiring blasting. Septic systems may not function properly because of shallow leach fields. Development should be on sufficiently large lots to insure the proper function of sewage disposal systems. While such areas can be found throughout the mountains in the north, the areas most likely affected by future development can be found southwest of Sunrise Lake.
7. *Highly erodible soils* - Development upon these soils should always employ erosion control techniques. There should be minimum disturbance of natural vegetative cover. Care should be taken to prevent siltation of streams. Few such soils were identified in Middleton.

C. Wetlands

While wet soils and their limitations were identified earlier, it is important to emphasize the value of wetlands to the community. In the past this was overlooked by developers, who argued that there was a need to improve the value of such useless parcels. This led to a pattern of mismanagement and permanent destruction of what is now recognized as a most useful resource. Some of the benefits of wetlands include the following:

1. *Flood protection* - Wetlands provide flood protection by storing excess runoff from storms and then slowly releasing this water downstream.
2. *Supplement stream flow* - During low flow periods, wetlands augment stream flow by slowly discharging excess water stored during times of high flow.
3. *Wildlife habitat* - Wetlands serve as essential habitats and nurseries for certain species of birds, fish and wildlife.
4. *Timber harvest* - Some wetlands may serve as a source of valuable harvest timber.
5. *Sediment and nutrient trap* - Wetlands act as traps which filter out organic matter, other nutrients, silt and other sediments. They can prevent their entry into adjacent water bodies, particularly when the ground is disturbed during development in shoreline areas.

Wetlands, commonly referred to as bogs, marshes, swamps and meadows, are lowlands covered with shallow standing and sometimes intermittent water. They are characterized by poor drainage.

Wetlands are found throughout Middleton, because of the poorly drained nature of so much of its soils. Extensive wetlands can be found in the following areas:

- on both the east and west side of Kings Highway;
- bordering Horn and Jones Brooks, Branch River, and Moose Brook, among others;

- between Ridge and Hollow Roads; and
- around Sunrise Lake.

Because of their useful role, it is highly recommended that wetlands become fixed open space elements in Middleton.

D. Floodplains

Floodplains provide storage for water level changes in rivers and lakes. These changes are generally seasonal, and are directly related to the heavier spring and fall rainfalls, as well as spring snowmelt.

A floodplain is that occasionally flooded area of land adjacent to a river or lake, that is above the water level in the summer and below it, or covered, during periods of high flow. The width of the floodplain varies with the amount of stream-flow, with higher flow rates increasing the amount of area flooded.

Because of their value as natural flood areas, the U. S. Department of Housing and Urban Development has identified areas of flood hazard for their Flood Rate Insurance Program. While Middleton does ~~not~~ belong to the program, a Flood Hazard Boundary Map has been completed. The following areas were identified as being within the 100-year flood hazard boundary (that is, the area likely to flood, on average, once every 100 years):

1. A zone surrounding Sunrise Lake and including the drainage brook that is a branch of the Cocheco River;
2. An area beginning at the Horn and Jones Brook confluence and running south to the Middleton-Milton border, on both sides;
3. An area beginning at the Branch River-Hall Brook confluence and running to the Milton-Wakefield border.

Middleton should protect these areas from overdevelopment through their zoning ordinance and building regulations. This will avoid rising flood levels in downriver areas due to construction in the floodplain (which decreases overall storage capacity), and ~~make~~ ^{keep} Middleton eligible for the federal flood insurance protection.

E. Surficial Geology - Aquifers

Principal concern here is with groundwater supply, or aquifers. The amount of groundwater found in any location depends on the nature of the underlying geologic material. Two geologic factors are important. First, the geologic material must be porous; that is, it must have some ability to store water. Water is stored in the small pores, or air spaces, between particles. Materials such as sand and gravel are most porous and can therefore store the greatest quantity of water. In dense material such as bedrock, water is stored only in joints or fractures (cracks in the rock). Thus bedrock is much less porous than gravel.

Secondly, the material must be permeable. Permeability, or the ability to transmit stored water, is dependent on the interconnection of the air spaces or pores; coarse-grained deposits have greater permeability than fine-grained deposits, while ledge may not be permeable at all, if its fractures do not intersect.

Aquifers are water-bearing geological formations with both high porosity and permeability. The only sizeable aquifers in Middleton are of the stratified drift type; that is, porous, permeable layers of sand and gravel. Such aquifers are capable of supplying only small municipal and rural water districts and commercial and light industrial use.

The only aquifer in Middleton, of moderate groundwater potential, lies along Moose Brook as it crosses Kings Highway. Efforts should be made to maintain the area as it is, especially protecting the aquifer recharge areas. This would include limiting the amount of impermeable surface construction and excavation activities in the area that may alter present recharge conditions. Limiting the use of road salt in this area would also keep the groundwater supply free of salt contamination.

F. Summary

The Land Use Suitability Map prepared for Middleton by the Strafford Regional Planning Commission summarizes all the natural resource data collected for the Town and creates a single composite map for use in community planning. The map suggests which land in Town is most appropriate and which is least appropriate for development, based on natural resource factors only. Obviously, the physical characteristics of the landscape are not the only criteria on which to base new zoning and/or community development decisions. For example, a parcel's location - it is inaccessible by road - or its history - it was owned and farmed by a famous Middleton Revolutionary War hero - are two other important factors which are not included. But the landscape's physical ability to support development without incurring environmental damage, and subsequent costs to taxpayers, is still important data for any land development decision. This is particularly true for rural communities, where community resources to overcome natural constraints (e.g., sewers or water purification plants) are scarce or non-existent.

The Land Use Suitability Map must be generalized to determine the location of large tracts of the Town where suitabilities are generally favorable to development. Small areas of recommended resource protection (e.g., wetlands), may be included within the bounds of such favorable districts. They can be protected by such means as wetland overlay districts, with specific zoning regulations concerned with wetland development.

If one generalizes from the Land Use Suitability Map, certain patterns become clear. Most of the land best suited for development tends to be concentrated south of New Durham Road/Ridge Road, although there is one area of some 100 acres accessed by John Jones Road north of New Durham Road. Another large area of moderate suitability (some 300+ acres) is situated just northwest of the intersection of Ridge Road and New Portsmouth Road. These areas might constitute residential zones of the highest allowable density.

However, these areas are heavily interspersed with wetlands and some floodplain. It is strongly recommended that a wetland protection overlay district be created, more strictly regulating development in these fragile areas. At minimum, a stream

protection district should be created for the Cocheco River branch south of Sunrise Lake, Moose Brook south of Hampshire Shore Road (encompassing the whole aquifer/wetland area crossing Kings Highway), Jones Brook south of its confluence with Horn Brook, and the Branch River south of its confluence with Hall Brook.

Other development districts might be the area west of Kings Highway and north of New Durham Road (the eastern slope of Birch Ridge), or the area between Moose Mountain and Bowser Pond Roads. These areas are recommended for a lower density of use, that is, a large minimum lot size, because the areas are only "just"-suited for development - slope is the principal limiting factor here. The remainder of the northern half of Middleton, except along principal highways and roads, might constitute a conservation area where only very low development densities were permitted if road access is available. A higher density would be permitted along the principal roads.

One last note. As stated earlier, Middleton's Land Use Suitability Map suggests possible areas of development, based on physical features alone. Other factors, particularly community attitudes, are not included on the map. If some areas are physically capable of development, but residents express concern over further developing these same areas, such conflicts between community values and land capabilities can only be resolved by town residents themselves. The town must decide for itself what values should take precedence and where it is most willing to accept and accommodate the growth that will eventually come.

CHAPTER 4: ECONOMIC BASE

This chapter analyzes several economic characteristics of Middleton. It examines factors associated with the labor force, particularly occupational and income levels. It then examines assessed valuation, to determine whether changing income patterns have been translated into an improved revenue base. Finally, it examines regional employment characteristics, focusing upon commuter movement and location potential in Middleton.

A. Labor Force and Income Characteristics

An important part of the economic base of any community is its labor force. Professional, technical and skilled laborers generally have greater income potential, which translates into greater amounts of disposable income invested in the community (e.g., housing). Chapter 2 already pointed out improved educational levels among Middleton residents, which has an indirect effect upon income.

Table 4-1 presents employed persons by occupation for 1970 and 1980. The table supports the contention that formal education levels among Middleton residents are increasing. Both professional and service categories have increased in numbers.

TABLE 4-1 EMPLOYED PERSONS BY OCCUPATION
PERCENTAGE OF WORK FORCE
1970-1980

	<u>1970</u>	<u>1980</u>
Professional/Technical/Management	4.5%	16.8%
Sales/Clerical	5.8	12.8
Skilled Labor	89.6	56.3
Farm and Forestry	0	0
Services	0	14.1

Sources: 1970 and 1980 Federal Census.

This has probably translated into improved income levels among year-round residents. The table, however is not entirely reliable, since skilled labor category definitions changed between the two census periods.

The product of changing labor characteristics is shown in Table 4-2. Median family income between 1970 and 1980 has increased by 112 percent, more than neighboring towns in the County. Despite that sizeable increase, however, Middleton remains among the lowest in the County. In 1980, the median family income for Middleton was 15.7 percent less than that for the State as a whole, and 11.5 percent less than that for Strafford County.

Table 4-3 shows this same problem. While per capita income in Middleton increased over 140 percent, more than any of its neighbors in Strafford County, Middleton still lags behind the State and County averages. This again demonstrates greatly improved income potential (possibly related to changing labor characteristics), but still behind most per capita income levels of surrounding communities. The net result is less-than-average revenue entering the community.

TABLE 4-2 MEDIAN FAMILY INCOME

	1970 Median Family <u>Income</u>	1970 as <u>% of State</u>	1980 Median Family <u>Income</u>	1980 as <u>% of State</u>	<u>% Change</u> 1970-1979
Farmington	8,844	91.2	16,549	83.9	87.1
MIDDLETON	7,833	80.8	16,620	84.3	112.1
Milton	8,365	86.3	16,989	86.1	103.1
New Durham	8,667	89.4	16,842	85.4	94.0
Strafford County	9,474	97.7	18,899	95.8	99.5
New Hampshire	9,698	100.0	19,724	100.0	103.4

Source: 1970 and 1980 Federal Census

See p. 120 2-6
TABLE 4-3 PER CAPITA INCOME

	<u>1969</u>	<u>% of State</u>	<u>1979</u>	<u>% of State</u>	<u>% Change</u> 1969-1979
Farmington	2449	61.7	5321	76.4 75.9	118.1
MIDDLETON	2273	57.4	5486	78.7 73.2	141.4
Milton	2485	62.8	5648	81.1 80.5	127.3
New Durham	2895	73.2	6087	87.4 86.8	110.3
Strafford County	2810	71.0	6309 6347	90.5	124.5 125.9
New Hampshire	3957	100.0	6968 7013	100.0	76.1 77.2

Source: 1970 and 1980 Federal Census

A fair barrometer of community investment in any town is its assessed valuation. Table 4-4 shows Equalized Valuation for selected communities. The same pattern for income levels has held firm here. While Middleton has grown at a rate comparable with surrounding communities in terms of equalized assessed valuation, its total valuation is still below that of neighbor communities.

TABLE 4-4 EQUALIZED VALUATION FOR
SELECTED COMMUNITIES, 1970, 1981

	<u>1970</u>	<u>1981</u>	<u>% Change</u>
Farmington	18,593,090	85,871,411	361.9
MIDDLETON	6,043,398	24,084,281	298.5
Milton	13,722,087	50,215,854	266.0
New Durham	11,770,257	54,195,037	360.4
Strafford County	422,466,289	1,659,318,757	293.0
New Hampshire	6,194,499,314	25,562,386,867	312.7

Source: New Hampshire Department of Revenue Administration.

The above suggests that should Middleton desire or require an expansion of municipal services (e.g., education), there will be a need to improve both income levels and assessed valuation. Present revenue resource levels would be insufficient, as they stand, for any extensive expansion.

B. Regional Employment

An important factor to increasing income levels and assessed valuation is employment outlook. Commuting patterns based on the place of employment are shown in Table 4-5. Both Milton and Middleton have a low percentage of locally-based employment. Commuting patterns from Middleton suggest movement south, mainly to the Rochester/Farmington Job Center and to the Dover/Somersworth Job Center. While not unusual among area communities, this does indicate a dependence on other communities for employment.

Expansion of the commercial and business sectors in Dover, Rochester and Portsmouth would likely increase Middleton's attractiveness as a bedroom town, as land availability diminishes in communities to the south.

Locally-based employment will not likely become a significant factor in Middleton for the near future. While there may be potential to add to assessed valuations through the development of commercial property for goods and services, their probable success is limited by a lack of community support. The numbers of residents is insufficient to support commercial concerns of any size.

Thus, unless there is a sudden development resulting in new industry in town, Middleton's assessed valuation will continue to be dependent upon the expansion of

residential development, particularly upper-income residential development. The Town may wish to look to condominium development or seasonal recreational developments as a way to add to assessed valuation without surpassing present service capabilities.

TABLE 4-5 COMMUTING PATTERNS - PLACE OF EMPLOYMENT: 1978

<u>Destination</u>	<u>Farmington</u>		<u>Middleton</u>		<u>Milton</u>		<u>New Durham</u>	
	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>
Farmington	474	44.7	30	19.2	91	14.8	21	9.7
Middleton	11	1.0	38	24.4	1	0.2	2	0.9
Milton	5	0.5	3	1.9	140	22.7	2	0.9
New Durham	3	0.3	1	0.6	3	0.5	67	31.0
Rochester	235	22.1	17	10.9	148	24.0	33	15.3
Dover/Somersworth	140	13.2	28	17.9	93	15.1	26	12.0
Newington/Portsmouth	68	6.4	8	5.1	40	6.5	8	3.7
Durham/UNH	12	1.1	3	1.9	13	2.1	6	2.8
Other NH	75	7.1	20	12.8	58	9.4	48	22.2
Maine	25	2.4	1	0.6	19	3.1	1	0.5
Massachusetts	<u>13</u>	<u>1.2</u>	<u>7</u>	<u>4.5</u>	<u>10</u>	<u>1.6</u>	<u>2</u>	<u>0.9</u>
SAMPLE SIZE	1061	100.0	156	100.0	616	100.0	216	100.0

Source: Rockingham-Strafford Bi-County Census Project, 1978

NOTE: The sample excludes those interviewed who were unemployed (housewives, children, etc.), and those who were employed elsewhere in the U. S. other than Maine, Massachusetts or New Hampshire.

CHAPTER 5: EXISTING LAND USE

The Existing Land Use Map for Middleton, completed in 1981 by Strafford Regional Planning Commission, indicates a pattern of primarily rural-residential land use. The densest residential settlement occurs in the Sunrise Lake area, while a more rural atmosphere exists throughout the rest of the town. With the exception of Sunrise Lake development, residential land use is restricted to most major town roads.

Commercial operations are scattered through the town. The only major commercial/industrial development can be found at the corner of Kings Highway and Hollow Road. These categories do not represent a significant amount of land.

The following rough estimates of land use acreage are based upon the land use map. They are rough approximations and should be used for comparison purposes only.

TABLE 5-1 AN APPROXIMATION OF LAND USE
BY CATEGORY, 1981

	<u>Acres</u>	<u>Percent</u>
Residential	841	7.2
Commercial	23	.2
Industrial/Commercial	35	.3
Industrial	15	.1
Institutional or Public	15	.1
Open Space/Woodland	<u>10,674</u>	<u>92.0</u>
TOTAL	11,603	100.0

According to the 1981 land use map, only 929 acres, or some eight percent of Middleton's total land area, is presently developed. Still, this represents an increase of 71 percent, or 385 acres, in only seven years. According to interpretations of aerial photos taken in 1974 by the New Hampshire Agricultural Experiment Station and the U. S. Soil Conservation Service, only 544 acres of Middleton were developed then.

Middleton's resident population in 1970 was 430, and grew to 734 by 1980, an average annual increase of 30 new residents per year. If we assume that population growth during the 10 years between 1970 and 1980 was constant, then Middleton's population in 1974 was approximately 550, with an average of .99 acres of developed land per person. By 1980, there was 1.3 acres of developed land per person, which would indicate that Middleton's present two-acre zoning is creating a more dispersed land use pattern. In fact, if our estimate of the 1974 population is correct, then Middleton grew by 184 persons in seven years, while the amount of developed land in-

creased by 385 acres, or an average of 2.1 acres per person. If that rate of land consumption continues, then Middleton will need another 1050 acres of developed land by the year 2000 to accommodate its projected population of 1233; in other words, the amount of developed land, which increased by 71 percent between 1970 and 1980, will more than double in the next 20 years.

Public recreational land is particularly lacking in Middleton. Only land adjacent to Sunrise Lake off Wolfeboro Road; the Town Beach can be classified as public recreation. Recreation facilities in Middleton were ranked first among unsatisfactory town services who responded to the Middleton Attitude Survey.

The Middleton Attitude Survey also recommended an increase in business and commercial land use. Sixty percent surveyed agreed that business and commercial expansion ought to be encouraged. Such expansion would help compensate for existing weaknesses in the existing economic base (see Chapter 4). This resident support, however, did not include an increase in light industrial land use.

Both seasonal and year-round residents acknowledged a need to preserve prime farmland and woodland. Sixty-seven percent of those surveyed recommended that zoning be introduced to preserve these land use categories.

CHAPTER 6: COMMUNITY FACILITIES

Community facilities are those physical facilities, owned and operated by the town, that provide some service to town residents. In most cases, facilities are purchased and supported through taxation and require approval by town residents during the budgetary process. Because the life span of most facilities is limited, it is important that:

- 1) an inventory of all town facilities be maintained;
- 2) town officials be aware of when a facility may need replacement or initial purchase; and
- 3) the cost of such an expense is planned for.

It is also important that town officials be aware of what services or facilities may be wanted by town citizens. When it is perceived that town people want or need to add to the stock of facilities, there will be necessary planning, financing, and most likely compromise, before such a facility becomes reality.

This chapter provides a facility inventory for Middleton, and makes recommendations concerning future additions, based on resident perceptions and recommendations by department heads.

A. Fire

The following inventory of fire-fighting equipment is presently owned by the town of Middleton:

TABLE 6-1 FIRE EQUIPMENT

<u>Type of Equipment</u>	<u>Make</u>	<u>Year</u>	<u>Condition</u>
Pumper	CheveroJet	1948	Fair
Tanker	International	1967	Good
Tanker ¹	GMC	1953	Fair
3/4 ton Pick-up ¹	Dodge	1954	Good
Pump	Gorham/Rupp	1974	Good

Chief Mammone does not consider the condition of the 1948 chevrolet Pumper adequate. He has recommended the pumper be replaced in the very near future. The remainder of the equipment will be kept and maintained for as long as possible.

The Fire Department also operates a Regency Base Radio unit and two other mobile units. Estimated value is at \$3,000. Present operating condition is satisfactory.

The citizen survey ranked fire protection number two among town services considered unsatisfactory. In fact, the survey identified fire protection as the number one area to spend tax dollars. Given citizen perceptions and the relatively high cost of provision of fire fighting equipment, Middleton officials must consider planning for

¹ These items are supplied to the town by Civil Defense and the State Forestry Service.

improvement of present services.¹

B. Police

The Police Department presently operates a four-wheel drive, 1979 Cheverolet Blazer, considered to be in good condition. Chief Shortell feels that the cruiser will be sufficient for another two years, at which time he recommends turning the vehicle over to the Highway or Fire Department for their use. The Chief also recommends that a conventional cruiser be purchased so as to lengthen the life of the four-wheel drive vehicle.

The Police Department operates a base radio unit and a mobile unit used in the cruiser. Both are considered to be in poor condition and will need replacement, with the mobile unit likely being needed first. The town should investigate the possibility of the fire and police departments sharing the same base unit, in order that costs be reduced in the long term.

The Chief also noted the present problem concerning staffing. Particularly in the summer season, it appears that one full-time officer is inadequate. Part-time officers, while very capable, do not provide the flexibility in time that an additional full-time officer would. It is recommended that the town give consideration to two full-time officers.

C. Highway

The town Highway Department is presently responsible for 16.52 miles of class V road and 1.85 miles of class VI road. In addition, there are 3.97 miles of class II road for a total of 22.34 miles of road in the town of Middleton.²

To meet road maintenance demands, the Highway Department operates the following equipment:

TABLE 6-2 HIGHWAY EQUIPMENT

<u>Type of Equipment</u>	<u>Make</u>	<u>Year</u>	<u>Condition</u>
Dump Truck/Plow	International 2010A	1976	Very Good
Dump Truck/Plow	International 2010A	1969	Fair
Road Grader	Galion	1969	Good
Rock Rake	-	-	Good
Sander	-	1979	Good
Sander	-	1982	New
¼ Ton Pick-up	Jeep	1968	Fair
2 Jeeps	-For Parts-		

¹ During the development of this Master Plan, the Fire Department was negotiating the purchase of a used pumper to be added to the existing inventory.

² NH Department of Public Works and Highways.

While roads ranked only six of eight in the citizen questionnaire on unsatisfactory town services, it ranked third in where to spend town tax dollars. This concern for road maintenance was expressed by both seasonal and year-round residents, who expressed such concerns as:

-would like to see hot top roads in the lake area;

-would like more funds to be provided for road maintenance, and do away with the so called farmer's mix!

Given the escalating costs of road construction, these expressed concerns should be examined. In addition, continued road deterioration will raise construction costs further in the future. A road improvement program should be scheduled.

D. School District

The notion of developing, at minimum, an elementary school, has been one of hot debate for Middleton residents. While not a concern of seasonal residents, year-round residents ranked schools as the number three unsatisfactory town service and number four in where to spend tax dollars.

As is commonly known, Middleton is presently under an "AREA" agreement with Farmington School District and has no facilities of its own. The School Study Committee, in response to what many feel is an inferior school system (Farmington) produced recommendations for withdrawal from the Farmington School District and construction of a Middleton Elementary School (February, 1982). Having one's own elementary school, it was felt, would provide for greater influence and control over elementary curriculum development and a better education for the town's children in general.

The town at the Annual School District meeting for 1982, turned down such proposals. This does not preclude the need for planning the eventual construction of an elementary school. Planning and financial arrangements now would avoid severe financial impact in the future. Actions have already been taken to secure sufficient land for eventual school construction (see below).

E. Recreation Facilities

With the exception of the town beach, a basketball court, and use of the Town Hall for recreation activities, Middleton has no public recreation facilities. This fact was noted in the questionnaire, which found that recreational facilities ranked number one in unsatisfactory town services.

The Board of Selectmen, in conjunction with the School Department have taken actions to alleviate this problem. The town has agreed to purchase the Leary property (across from the Town Hall), a total of 67+ acres. The property is being purchased in speculation of future school development. The School Department has agreed to give a portion of that land to the town to develop a ballfield. The town should investigate the potential of private foundation support and/or donations, in lieu of tax dollars for park development (e.g., New Hampshire Charitable Fund).

F. Sanitary Landfill

After much investigation and discussion, Middleton officials have concluded that there are no areas capable of supporting a sanitary landfill in town. With this in mind, the town will examine regional alternatives, with the intention of forming a solid waste district in accordance with the guidelines of Chapter 149-M, New Hampshire Revised Statutes Annotated.

This will become increasingly important as Brookfield's present landfill operation reaches capacity (estimated to be within five years). New Durham, Brookfield, Wakefield and Milton have expressed an interest in some type of regional cooperative. It is recommended that Middleton meet with these communities to examine various alternatives.

G. Town Administration

With Middleton growing from year to year, it has become apparent that the future will bring changes in the present pattern of town administration. As the town grows, it may be necessary to investigate alternative forms of government. Included among these may be the need to hire an administrative assistant or town manager to improve the delivery of town services (the 4th ranked unsatisfactory town service in the Community Attitude Survey).

The Selectmen have noted the following items needing immediate attention:

- the purchase of a copy machine to reduce municipal copying costs;
- the purchase of an electric typewriter;
- due to State mandates and an increasing volume of records, there is a need to expand the size of the Selectmen's office; and increase the size of the existing vault.

The future land use plan for Middleton is shaped by three factors. First, there is a desire to protect unique natural resources that have long been an attractive feature to Middleton residents. Secondly, there is a need to buttress a sagging economic base by increasing the total assessed valuation of Middleton property. Finally, citizens have expressed a desire to increase recreational opportunities not now available to Middleton children.

A. Natural Resources

The desire to protect unique natural areas is not uncommon among rural towns. The Middleton Attitude Survey found that only 2.5 percent of those responding did not want the town's important wetlands preserved. Similarly, there was a great deal of support (60.5% of the year-round residents and almost 83% of the seasonal residents in the sample) for regulating development on steep slopes, to prevent soil erosion and stream sedimentation.

Given this support, the Master Plan set as a goal the protection of wetland's and steep slopes. Thus, the Master Plan first recommends that a policy be developed for protecting the northern mountains from development. Included among these slopes are Mount Jesse and Birch Ridge, Perkins Mountain, Phoebes Noble Mountain, Piper Mountain and the Moose Mountain Range (on the northern border). While no specific zoning recommendations are made at this time, a general policy for the treatment of steep slopes is addressed under Section I, General Requirements of the proposed subdivision regulations of the town of Middleton (see Appendix C). Future policy directives should include the development of soil erosion control measures for timber harvesting operations, and perhaps a soil erosion control ordinance.

Secondly, the plan recommends the protection of wetlands within Middleton's boundaries. These wetland areas would include, but are not limited to those surrounding Kings Highway, Horn and Jones Brooks, Branch River and Moose Brook; those between Ridge and Hollow Roads and those wetlands around Sunrise Lake. Immediate direction is again provided by the General Requirements of the Proposed Subdivision Regulations, which state that "Land of such character that it cannot be solely used for building purposes... shall not be platted for residential occupancy..." (Section 1, part ii). Future action should include the development of a Prime Wetlands Ordinance developed in accordance with the guidelines of the State Wetlands Board.

The Master Plan further recommends that Middleton enter the Emergency Phase of the National Flood Insurance Program. Failure to enter the Emergency Phase will mean that those residents who may want flood insurance are not eligible. To enter the Emergency Phase, it is recommended that the town follow the guidelines outlined in Appendix I - Requirements Prior to Making Application and Suggested Warrant Articles of the New Hampshire Flood Insurance Handbook, published in 1978 by the New Hampshire Office of Comprehensive (State) Planning.

An independent environmental objective of the Master Plan is the protection of Sunrise Lake from over-development. The 1981 Town Meeting approved two-acre minimum lot sizes for the entire town, partly addressing this problem. But the town must continue to reckon with water quality problems associated with pre-existing, failing septic systems around the lake.

Thus, the Master Plan recommends the building/health inspector work in conjunction with the New Hampshire Water Supply and Pollution Control Commission to inventory and monitor existing septic systems, identify those inadequate for present use and require substantial improvements.

B. Tax Base Development

The concern over the weakness of Middleton's tax base has been mentioned throughout this Master Plan. Goals and objectives addressed the need to provide necessary town services while permitting compatible residential and commercial development (particularly recreation oriented). In so doing, a balance between the costs of town services must be established. The Middleton Attitude Survey suggested that 60 percent of those surveyed agree to the notion of encouraging business and commercial growth. Additionally, by a margin of two to one, the survey called for the creation of specific business zones to encourage such expansion. To address these problems, the Master Plan makes several land use policy recommendations:

- the establishment of a commercial zone;

- a proposal for alternative housing development; and

- the adoption of the proposed Subdivision Regulations for the town of Middleton.

The commercial zone should be generally established in the area of DiPrizio's Lumber Company.

In accordance with the desires of the residents as expressed in the Middleton Attitude Survey, developments should be restricted to small commercial enterprises. In some cases, light industry may be permitted. This proposal will be introduced at Town Meeting as an amendment to the Zoning Ordinance.

Due to the present state of depressed housing values in Middleton and the unlikelihood that substantial business interests could be attracted to the area, it is recommended that some form of alternative housing be permitted. The Planning Board reviewed various housing alternatives, and recommends that condominium development on a limited basis be permitted in selected areas of town. The choice of condominiums as an alternative was based on the following:

- condominiums usually attract childless households, and would therefore add little to the burden of school system taxes;

- condominiums require limited road systems and utilities, therefore requiring little in the way of other municipal services;

- condominiums presently being constructed in New Hampshire are valued at a rate higher than present housing values in Middleton, therefore adding substantially to the tax base.

A proposed condominium ordinance can be found in Appendix B.

Development of an efficient set of subdivision regulations is crucial to quality development in Middleton. The proposed subdivision regulations found in Appendix C are designed... "to protect the citizens of Middleton against undue expenditures of public funds..."¹ The regulations will provide for a consistent review process for all subdivisions, requiring uniform standards for road construction, sewage disposal, utility layouts and block design.

¹ Article 1, Proposed Subdivision Regulations for the town of Middleton.

Subdivision regulations vest responsibility with the Planning Board to review proposals for their unique character, design qualities and impact upon town services. With this responsibility the Planning Board has the power to evaluate proposals and recommend changes based on their evaluation of adverse impact. With this improved organization, it is hoped that developments of greater assessed value will become prevalent in Middleton.

C. Recreation

The subject of recreation drew the largest number of complaints from the Middleton Attitude Survey, ranking first among unsatisfactory town services. It thereby warrants special attention. The major concern voiced by residents is the lack of recreational facilities for children. Without ballfield and park (or common), there are no areas in town where children can gather.

The Board of Selectmen, together with the School Department, has begun an ambitious program through initiating the purchase of the 67+ acre Leary parcel. Funds, however, will still be needed for park and/or ballfield development. It is recommended that the town examine alternative funding resources, such as the New Hampshire Charitable Fund, to defray the costs of such development.

It is further recommended that the town encourage the development of private recreation areas. Such development provides additional commercially assessed property, as well as summer residents to support local commercial establishments. Additionally, summer residents usually require little in the way of town services.

Private development proposals should be restricted to campground facilities. Attention should be given to limiting the size and/or permanent nature of each campsite. Given the town's low total equalized valuation relative to neighboring communities, it is not in the town's best interest to permit the permanent location of "travel trailers". This may mature to a year-round living situation that could cost the town in terms of future service provisions. Also essential to any such permitted development would be adequate septage treatment facilities.

APPENDIX A: MIDDLETON ATTITUDE SURVEY

Summary Report to the Middleton Planning Board

MIDDLETON ATTITUDE SURVEY

By the Strafford Regional Planning Commission
February 1981

Introduction

At the request of the Planning Board, The Strafford Regional Planning Commission (SRPC) helped design a questionnaire to survey attitudes of Middleton residents towards growth and development of their town. The survey is the first step in developing a master plan for Middleton. Its purpose is to help the Planning Board base the community plan on what residents think and want for their town. The survey results, along with information on Middleton's natural resources, its population growth trends, and what New Hampshire State law requires and allows, will be used to develop the plan.

The questionnaires were distributed and collected by Planning Board members during the summer/fall of 1980. SRPC tabulated the results during October and presented the Planning Board with a report in November, 1980. This report is a summary of that first report. The Planning Board has the original tabulations for review by residents.

The 1980 resident population of Middleton is 731, according to the U. S. Bureau of the Census, with a preliminary estimate of 248 resident households. Some 77 questionnaires were returned by year-round residents, for a survey sample of 10.5 percent. This was not a scientific random sampling; therefore, care must be exercised when generalizing conclusions based upon the sample.

The Census also estimates there are 270 seasonal households in Middleton; 46 questionnaires were returned by seasonal residents. Year-round and seasonal resident responses were tabulated separately, but are combined in this summary report whenever there are no significant differences of opinion between seasonal and year-round residents.

General

The survey sample showed year-round residents lived in Middleton from 1 to 68 years, but averaged 12.8 years. Almost half (48%) lived in town less than 5 years, 32.5 percent between 6-20 years, and the remaining 19.5 percent for more than 20 years - 12 percent for more than 40 years. Thirteen were apparently seasonal residents first, for an average 12.1 years, before becoming permanent residents. Some 44.1 percent were between 41-65 years old, with one-fourth between 26-40 and another (23.4%) over 65.

The 46 sampled seasonal residents have lived in town from $\frac{1}{2}$ to 24 years, averaging 7.1 years. Over half (52.2%) have been seasonal residents less than 5 years; the remainder, except for one, less than 20 years. Almost three-fourths (73.9%) of the sampled seasonal residents were between 41 and 65, with 15 percent between 26-40, 2 percent under 25 and 9 percent over 65.

According to the survey, the most important benefits of living in Middleton are:

TABLE 1: LIKED MOST ABOUT MIDDLETON

(see next page)

TABLE 1: LIKED MOST ABOUT MIDDLETON

<u>Responses</u>	Year-Round		Seasonal		Both	
	Score*	Rank	Score*	Rank	Score*	Rank
a. Small Town and Country Living	148	1	34	4	182	1
b. Sunrise Lake	71	4	61	2	132	3
c. Peace, Quiet, Privacy, Fresh Air	100	2	70	1	170	2
d. Friendly People	80	3	24	5	104	4
e. Low and Reasonable Taxes	56	5	16	7	72	6
f. Natural Environment & Recreation	17	7	54	3	71	6
g. Location (Near Work, City, Shopping)	23	6	18	6	41	7

*Score: 1st choice counted 4 points; 2nd - 3 points; 3rd - 2; 4th choice - 1.

The biggest problem facing the town, according to everyone surveyed, is the threatened loss of Sunrise Lake. Whereas growth was the second biggest problem for seasonal residents, it was fourth to permanent residents - the school system ranked second. Antagonism and distrust between year-round and seasonal residents, brought on by the uproar over Sunrise Lake, was ranked third by both seasonal and year-round residents. They also agreed on the fifth most important problem - the town budget, assessments and taxes. According to seasonal residents, the fourth biggest problem in town is pest control - black flies, mosquitoes - even stray goats! Pest control was not mentioned by permanent residents.

TABLE 2: MIDDLETON PROBLEMS

<u>Problems Identified</u>	Year-Round		Seasonal		Both	
	Score*	Rank	Score*	Rank	Score	Rank
a. Sunrise Lake & Dam	132	1	91	1	223	1
b. School System	68	2	9	-	77	4
c. Growth (too much <u>or</u> too little)	55	4	44	2	99	2
d. Town Budget & Taxes	38	5	15	5	53	5
e. Antagonism & Distrust	60	3	35	3	95	3
f. Pest Control	0	-	16	4	16	-

*Scored same as Table 1.

It might be noted here that a few residents thought the survey was a great idea. One couple said they had trouble attending Town meetings at night. The survey let them communicate their comments in the easiest way possible.

The fifth survey question asked residents to rate town services. Everyone rated recreational facilities as most unsatisfactory, followed by local fire protection. From there, answers diverged:

TABLE 3: UNSATISFACTORY TOWN SERVICES

Services	Year-round		Seasonal		Both	
	Score*	Rank	Score*	Rank	Score*	Rank
A. Road System	6	8	6	4	12	8
B. Police Protection	8	7	5	5	13	6
C. Fire Protection	39	2	10	2	49	2
D. Road Maintenance	9	6	8	3	17	5
E. Schools	33	3	1	8	34	3
F. Form of Government	17	4	5	5	22	4
G. Planning Board	10	5	3	7	13	6
H. Recreational Facilities	49	1	15	1	64	1

* Score: Simply the number of respondents who rated the service unsatisfactory.

Many residents commented about town services. Everyone complained about the lack of recreational facilities for children and the need for a park or common for picnics and activities. Some felt even a field where children could play ball would be an improvement, if playground equipment couldn't be afforded. There were many complaints about fire protection too, with residents asking for an adequate fire truck and stronger volunteer system, and some suggesting a need for a second station. One resident asked, "My house burned to the ground in March. How about getting a fire engine?"

The Farmington school system received a number of unfavorable comments. Some were understanding - "Farmington doesn't have the time to spend on each child. They have too many in a class," while others asked, "Is there, or will there be enough kids to warrant a school in Middleton? What are our options?" Another simply asked, "Can we send our kids to Rochester?"

Others felt the town would soon need a Town Manager, while seasonal residents often commented on the unresponsiveness of town government to their needs. One expressed his frustration this way - "I pay real estate taxes, but am still considered non-resident for hunting and fishing licenses? Not too fair!" Still others, particularly but not always seasonal residents, complained about the roads:

- would like to see hot top roads in the Lake area.
- many promises, no action.
- more funds should be provided for road maintenance, and do away with the so-called "farmer's mix".

When it came to spending tax dollars, however, priorities changed a bit, with public safety first, (fire and police protection, followed by road maintenance) before recreation and education needs. There was very close agreement among both seasonal and year-round residents in answering where and how they wanted their tax dollars spent, particularly for their first 5 choices. Table 4 shows this:

TABLE 4: WHERE TO SPEND TAX DOLLARS

(see next page)

TABLE 4: WHERE TO SPEND TAX DOLLARS

Town Services	Year-round		Seasonal		Both	
	Score*	Rank	Score*	Rank	Score*	Rank
A. Road Maintenance & Improvements	468	2	270	3	738	3
B. Fire Protection	521	1	390	1	911	1
C. Police Protection	464	3	305	2	769	2
D. Public Recreation	300	5	163	4	463	4
E. Community Center	229	6	109	9	338	7
F. Town Grammar School	323	4	121	8	444	5
G. Building Inspector	165	9	139	5	304	9
H. Town Landfill	227	7	129	7	356	6
I. Town Library	180	8	130	6	310	8

* Score: 1st choice counted 9 points; 2nd choice - 8 points, 3rd - 7 points, and so on down to 9th choice - 1 point.

Economic Development

Sixty percent of those surveyed agreed that the town should try to encourage business and commercial growth. They also agreed, by a margin of 2 to 1, that such growth should not be allowed just anywhere, but rather in specific business zones created for the purpose. Areas suggested were near the Town Hall, the center of Town near DiPrizio's, and on King's Highway.

There was far less agreement on zoning an area of Town for a possible future shopping mall or convenience center. More permanent residents voted NO than YES, 57 to 40 percent (3 percent didn't answer). On the other hand, 48 percent of the seasonal residents voted YES, compared to 39 percent who said NO, with 13 percent not answering. Obviously, there is no consensus among residents.

There was no consensus either on the next survey question about encouraging light industrial development, even though year-round and seasonal residents were in agreement. About 45 percent of both groups voted YES, another 45 percent voted NO, with 10 percent abstaining.

Everyone agreed very strongly that prime farmland, farmland and woodland should be saved for such uses, although a greater percentage of seasonal than year-round residents were concerned about this issue. Table 5 shows the difference:

TABLE 5: AGRICULTURAL ZONING

Opinion	Year-round		Seasonal		Both	
	No.	%	No.	%	No.	%
Favor	46	60	37	80	83	67
Disfavor	10	13	2	4	12	10
Don't Know/Unans.	21	27	7	16	28	23
Total	77	100	46	100	123	100

The survey sample of Middleton residents also agreed that the Town's recreational trade was important, and should be expanded. The sample of summer residents felt a bit more strongly about this, as might be expected, 65 percent encouraging expansion, compared to 50 percent of year-round residents. Only 4 percent of the summer residents voted against such expansion, compared to 23 percent of the sample of year-round residents. The remainder didn't know or didn't answer. Those surveyed also generally agreed that only small-scale recreational businesses should be encouraged, better fitting the small-town concept that Middleton represents, rather than large-scale recreational development.

Growth and Community Planning

More than 3 times as many residents in the sample agreed with the existing 2-acre lot size requirement than disagreed, 66 percent to 19 percent. The remaining 15 percent didn't express an opinion.

There were differences of opinion, however, between seasonal and year-round residents on support for flexible lot size requirements, based on soil and environmental capabilities. Year-round residents were split on the question - one-third supported the concept, one-third didn't, and one-third didn't know. Yet 52 percent of the seasonal residents sampled would support flexible lot sizes, and only 15 percent disagreed with the idea (26 percent didn't know and 6.5 percent didn't answer). When asked what minimum lot size the town should have, 50 percent of all people surveyed still wanted 2 acres, as is now required, yet 22 percent suggested a one-acre minimum lot size. Only 3 people suggested a minimum lot size bigger than 2 acres.

There was a similar split concerning local support for zoning. Forty percent of the permanent residents surveyed supported zoning for the town, but another 38 percent did not, while 22 percent expressed no opinion. Given this split, it is difficult to explain how 60 percent of the sampled permanent residents could answer that prime woodlands and farmlands should be zoned agricultural, to save them for such use, or that Middleton should have a minimum 2-acre lot size. On the other hand, 63 percent of the seasonal residents sample supported zoning, compared to 11 percent who didn't.

There was general agreement with the present 200-ft. minimum lot frontage requirement; 70 percent of those surveyed found it suitable.

Some 65.5 percent of all those surveyed felt that the town should limit home construction to a certain rate per year, compared to 20.5 percent who did not. Slightly more permanent residents than seasonal residents supported this, 68 percent to 61 percent. More permanent than seasonal residents also disagreed with such limits to growth, 22.4 percent to 17.4 percent respectively. Some reasons given for supporting growth controls in town were:

"I like Middleton the way it is, so I have no desire to see it change."

"To enable the town to properly balance and maintain services at reasonable costs."

"Don't believe in overcrowding."

"Increased housing leads to demands for more services, more children, more problems, more welfare."

Representative reasons given for not supporting limits on building permits issued per year were:

"The economy in this area is bad enough now without limiting home construction - maybe later when things start to crowd in."

"No one should be told where they can't live!"

"The town has enough land to accommodate more new construction and bring new tax dollars."

"Present building market rates throughout the County will adequately limit Middleton's growth rate."

Again, it is difficult to reconcile the lack of clear support for zoning with the support shown for limiting growth. It must also be pointed out that federal and state laws and court decisions will make it increasingly difficult, if not impossible, to limit growth rate.

A majority of people said that Middleton should have some minimum building code, even if it might require a part-time or full-time building inspector. It must be remembered that a local building inspector was the lowest priority with year-round residents, and ranked only 5th with seasonal residents, when it comes to spending tax money however.

Year-round residents were split on whether to continue to allow mobile homes on single lots or restrict them to areas zoned for mobile parks, 42 percent to 39.5 percent respectively. Another 10.5 percent said both, while 8 percent said neither. Seasonal residents wanted mobile homes restricted to parks, 54 percent to 17 percent. Overwhelmingly, year-round residents felt that the 2-acre lot size requirement should apply to mobile homes, whether or not they were restricted to an area zoned for a mobile home park. Some 55 percent of the seasonal residents felt the same way, although a minority (22%) felt that the lot size in a mobile park could be smaller ($\frac{1}{2}$ - 1 acre).

D. Environmental

Overwhelmingly, the townspeople surveyed felt that Middleton should make an effort to preserve its most important wetlands. Only 2.5 percent of those who answered the survey said no to this question. Similarly, there was a great deal of support (60.5% of the year-round residents and almost 83% of the seasonal residents in the sample) for regulating development on steep slopes, to prevent soil erosion and stream sedimentation. However, one third of the year-round residents weren't sure and answered "Don't know" to this question; only 2 of them and none of the seasonal residents answered "no".

There was less consensus about procuring a land fill or a site for dumping septage pumped from individual septic tanks in town, although the tally between year-round and seasonal residents was very even. Some 48 percent of everyone surveyed said the town should have its own landfill, compared to 14 percent who said no, but a third said they didn't know. Again, 43 percent thought the town should have a site of disposing of septage effluent, compared to 21 percent who thought it unnecessary, but 31 percent had no opinion (4 percent didn't answer).

APPENDIX B: MIDDLETON CONDOMINIUM
DEVELOPMENT PROPOSAL

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DEVELOPMENT PROPOSAL

1) Change 2.3 Exceptions to read as follows:

Business, commercial and industrial uses; and condominium development are allowed as exceptions within the general Residential District, as provided in Article 5, Special Exceptions.

2) Addendum to Definitions as follows:

6.15 Condominium: A Multiple family structure wherein any real property and interest therein are recorded in condominium instruments pursuant to New Hampshire Revised Statutes Annotated, Chapter 356-B and where the individual interests of associated common areas are vested in the unit owners.

6.17 Condominium Instruments: is the collective term referring to the declaration by-law, and site plans and floor plans, recorded pursuant to the provisions of New Hampshire Revised Statutes Annotated Chapter 356-B.

6.18 Common area or common areas: Means all portions of the condominium other than the units.

3) Condominium Development

Condominium Development may be given special exception by the Board of Adjustment upon submission and approval of a site plan, provided however, that the following restrictions shall be observed:

- a. The use will not cause undue hazard to the public health, safety or welfare by reason of excessive traffic congestion or hazards, undue risks to life and property, unsanitary or unhealthy emissions of noise, odor, smoke, vibration or waste disposal or similar adverse causes or conditions.
- b. The use will not be excessively detrimental to the character of the immediately surrounding area, or to its future development, by reason of extreme variation from the kind and nature of other uses in the vicinity, or by reason of obvious and adverse violation of the character or appearance of the surrounding area or cause an excessive decrease in value of surrounding properties.
- c. The minimum area for a condominium development shall be 12 acres.
- d. A minimum density requirement of one unit per two acres shall be in effect for the parcel being developed. This density requirement shall be maintained and applied to any conversion land or space, intended for development in the future. There shall be no minimum lot size for unit construction, provided soil and slope conditions are acceptable.
- e. There shall be a minimum building setback ^{from the Road of 200' and a setback} from ^{the} all property lines of 100' feet.
- f. No building shall exceed 35 feet in height.
- g. A time table for completion of the condominium development shall be established and provision made to indemnify the occupant of the development or the town, should the condominium development not be completed.

h. Each condominium unit shall have reasonable access to the open land, but not need front directly on such land.

i. The condominium shall make use of a commercial septic system(s) and commercial water system(s). Construction of such shall be in accordance with all Water Supply and Pollution Control Commission requirements.

j. Unless identified as convertible land, all areas designated as open space shall be permanently maintained as such and shall be guaranteed as such by a restrictive covenant describing the established open space area. The following uses shall be permitted in the open space.

i. Outdoor recreation such as golf, swimming, tennis, skating, hiking and riding trails, and all other forms of predominantly outdoor recreation except shooting ranges.

ii. Accessory service buildings and structures incidental to outdoor recreation, as set forth above, where said accessory service buildings and structures ^{are} necessary to the pursuit of a permitted recreational use on the premises.

iii. For the purpose of this paragraph, the ^{planning} Board of ~~Adjustment~~ shall have the right of review and approval of the siting of all outdoor recreational facilities, accessory service buildings and structures.

iv. In the case where an area is designated a "natural area", no recreation (other than passive uses such as fishing, swimming, hiking, canoeing) shall be permitted if they will alter any of the natural features. No improvements, accessory service buildings, or other structures shall be permitted in natural areas.

K. Provisions for Maintenance of Common Area(s) and Payment of Common Expenses. In the Condominium project, the maintenance of common area(s) and payment of common expense(s) shall be done so in accordance with the provision of New Hampshire RSA 356-B.

i. In the case where the condominium development consists of 10 units or less; all deed restrictions, organizational provisions for a Homeowner's Association, and any other management concerns for common areas shall be approved by the Board of Adjustment, with the advice of the Town Attorney.

ii. In the case of more than 10 units, final approval for all deed and financial arrangements of the Condominium Development shall be done in accordance with RSA 356-B, through the State of New Hampshire Attorney General's office.

1. No approval for a condominium development shall be granted by the Board of Adjustment until the State of New Hampshire Attorney General's office has approved of the condominium instruments and other legal requirements in accordance with New Hampshire Revised Statutes Annotated, Chapter 356-B.

m. No approval for a condominium development shall be granted by the Board of ~~Adjustment~~ until the Planning Board has been given the opportunity to review and comment.

- n. Before approval by the Board of Adjustment of any exception a public hearing shall be held with at least fifteen days notice of time and place of the public hearing published in a newspaper of general circulation in the town and legal notice thereof shall also be posted in in at least three public places in the town. All abutters shall be notified by the Board of Adjustment by certified mail at least one week prior to any public hearing regarding said site. The names and addresses of the abutters shall be supplied by the applicant on a plot plan to be submitted to the Board of Adjustment.